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ABSTRACT

The literature on research and development of programs relevant to the area of compensatory education is reviewed and summarized in this report, which was designed to provide information for the state of Florida in planning compensatory programs. The review is divided into four sections concerning administration and organization, home/school relationship, instructional organization and procedures, and classroom environment related to compensatory education. The summaries of the research include these points: key administrative characteristics for successful compensatory education programs are said to include systematic planning, strong leadership, appropriate teacher training, utilization of resources, and the need for communication; parent involvement can be effective; and major characteristics said to effect achievement include diagnosis of strengths and weaknesses, specification of goals and objectives, and instructional time and engaged time. Appendixes include descriptions of site visitations, comparisons of the characteristics of exemplary compensatory education programs with the district planned programs of the state compensatory education program, and the site visitation form and questionnaire. (MKM)

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Compensatory Education

Literature Review

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INTRODUCTION AND SUMMARY

Introduction

The Florida Compensatory Education Act of 1977 (Chapter 236.088, Florida Statutes) provided "supplemental funds to each school district to be used for the sole purpose of providing direct remedial instruction to those students enrolled in the K-12 program who have need of special educational assistance in order that their level of educational attainment may be raised to that appropriate to their age." The intents and purposes of the Act further require that the district-selected instructional programs be evaluated in terms of increased student achievement in the basic skills of reading, writing and arithmetic by pre- and post-testing of each student receiving special assistance from programs supported by the special distribution.

The purpose of this report is to provide a comprehensive review and summary of the available literature on research and development programs relevant to the area of compensatory education.

This study was funded by the Florida Department of Education through Grant Number 790-012, to the College of Education, University of Florida. The goals of the grant were as follows:

1. To develop a comprehensive model for the review of the available literature in the area of compensatory education.
2. To employ that model in the comprehensive review of the available literature on research and programs relevant to the area of compensatory education.

3. To synthesize the research literature and to provide tentative recommendations for promising compensatory education practices.
4. To perform site visits to a selected number of school systems both within the State of Florida and in other states. (See Appendix A)
5. To systematically review the summaries of the sixty-seven county school systems' compensatory education programs. (See Appendix B)

It should be noted that it was not a goal of this grant to review the literature on the classification of children into compensatory programs. Rather, it was to examine compensatory programs in which children had already been assigned.

The development of this report was accomplished in several sequential stages. The first task was to develop definitions for developmental, corrective, remedial, and compensatory education as it will relate to this project. These terms are defined below.

Developmental Program

A developmental program is one that is designed for most students in a school. It is a systematic program organized to take the students from the beginning readiness skills through mastery of the program. In reading, the program begins with reading readiness and moves students sequentially through the program to develop skills in vocabulary, work perception, comprehension, and study skills. These skills usually are taught using a basal reading program and where instruction is differentiated by grouping students using their achievement levels. The typical grouping procedure is dividing a self-contained classroom into three reading groups. A child whose reading skills are commensurate with their learning rate belongs in a developmental reading program, even if that student is reading below grade level.

Corrective Program

A corrective program usually is conducted by the classroom teacher for those students whose skill weaknesses are apparent in the daily work or through periodic assessment of skills. A corrective program is a regular part of differential instruction. The difficulties are considered to be minor and ones that can be corrected in a short period of time. A pupil displays difficulties in a particular skill, such as being unable to grasp the literal meaning of a passage even though that student pronounced every word correctly. By the teacher giving this student some personalized assistance focusing on literal comprehension within the classroom setting, the specific difficulty will likely be overcome.

Remedial Program

A remedial program is designed for those students who have the capability of performing at a higher level than they actually are performing. These students require an extensive diagnosis and remediation. The remediation instruction is done on a one-to-one basis or in very small groups. The person teaching these students is a teacher with specialized training in individual diagnostic procedures and remediation techniques.

The real distinction between corrective and remedial programs may be in the degree of disability more than in kind and may be artificial. Corrective and remedial programs differ in four aspects: (1) where the treatment takes place, (2) who provides the treatment, (3) the number of children treated in a session, and (4) severity of the problems treated.

Compensatory Program*

The compensatory programs which relate to the Florida Basic Skills and Functional Literacy tests are designed for those students who have not learned the basic skills well enough to reach a particular level of literacy. That level of literacy is usually identified through the use of standardized achievement test scores. Students selected for the compensatory education program must be identified by an equitable, objective district assessment procedure. Any student who meets the criteria established in the district's assessment plan is placed in the program. This compensatory program is designed to be supplementary to the other compensatory programs and should not jeopardize the comparability requirements of Title I of the 1965 Elementary and Secondary Educational Act.

The instructional programs are intended to assist students who have been identified by a substandard performance using appropriate assessment procedures. For instance, one county in Florida places students in the compensatory math program if that student scores below the 30th percentile for his/her particular grade level. It should be kept in mind that a student can be in one or more of these types of programs.

The second task was the development of a conceptual model to serve as a framework for the review and evaluation of the available literature on compensatory education programs. A summary of this conceptual model is provided in Figure 1.

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*This definition is specific to this particular project and should not be generalized to all compensatory programs.

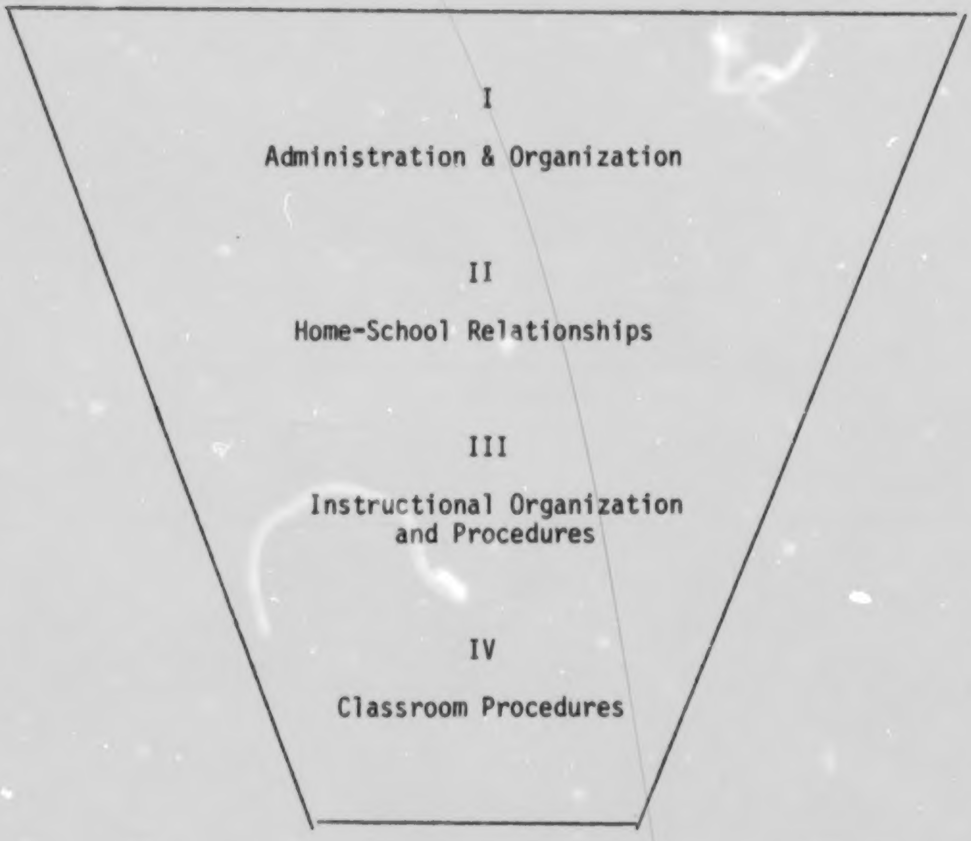
I
Administration & Organization
II
Home-School Relationships
III
Instructional Organization and Procedures
IV
Classroom Procedures

Figure 1. Conceptual Model

Each of the four components of the conceptual model was assigned to a member of the faculty who specializes in that area. A thorough search of the relevant literature was carried out for each area. Sources used in this review included an extensive computer search of the ERIC materials relating to compensatory education as well as current journal and book articles.

The results of that review are presented in the following four chapters, one chapter for each of the four components of the conceptual model. For purposes of consistency, the same format is used throughout. The first section is an introduction which describes, in a general way, the major aspects of that component of the conceptual model. This is followed by a description of a number of programs or projects which were included in the literature review. The final section of each chapter provides a summary of the characteristics identified from the literature review which are associated with promising practices in compensatory education.

The four chapters in this report reflect the results of a highly selective review and evaluation, of a large body of literature. Many literature reports are excluded due to inadequacy of the information provided and/or lack of methodological soundness of the study. Only those reports which met the criteria of adequate descriptive information about a program or study were chosen as the bases for conclusions and recommendations in this report.

Summary

Chapter I is a review of the available literature on research and development programs relevant to administration and organization. The literature on research and development programs reveals that key administrative characteristics for successful compensatory education programs include among other factors, systematic planning, strong leadership, appropriate teacher training, and utilization of resources. Emphasis is given to the administrative leadership function and identification of characteristics of planning and management practices (external to the classroom) in productive compensatory education programs.

Certain administrative characteristics are positively associated with successful programs: Systematic planning is essential to any successful change in public policy. This is especially true with the state system of education where a chain of decisions from the legislature down to the local school board can affect actual program performance. The sources indicate that such planning must be well conceived at all levels. Active involvement in the decision making is a key to the planning process; as a U.S. Office of Education report stated: "These decisions are the basis for the necessary partnerships among board members, educators and parents as they plan the program's design, implementation and evaluation." Such involvement should produce clear objectives which must be enunciated in unmistakable and measurable terms. The policy objective and the instructional techniques must be well planned, coordinated, and directly related.

"Strong leadership" was found to be one of the most important aspects of a good compensatory education program. All successful programs had a designated "key" person responsible for successful performance of the children of the school. In most cases it was the school principal who was found to be in the critical position in formulating and carrying forward a successful program. It was found that productive outcomes are associated with the following school principalship characteristics: (1) conveys strong and assertive leadership, (2) relates a definite point of view of what kind of school climate and instructional procedures lead to higher achievement, (3) communicates optimistic expectations for student achievement outcomes to teachers, (4) maintains good building order and discipline without an atmosphere of oppression, (5) emphasizes that compensatory education is a priority and that the acquisition of basic skills is of paramount importance to the educational program, and (6) encourages staff to have high expectations of the students. Personal actions and attitude of the principal must be such that the academic achievement level required in institutional policy is easily recognized and administratively conveyed to the teachers and students, constantly maintaining a good balance between managerial and instructional skills. While the precise balance is unknown, some evidence indicates that principals trained purely as instructional leaders with little background in fiscal affairs and management are less successful in producing effective, compensatory programs. It is important that the principal place emphasis on documentation and measurement of student progress and be receptive to change and modifications where they prove to be necessary.

With respect to excellent reading programs in particular, five major points could be additionally identified providing insight into successful administrative leadership practices: (1) reading was specifically designated as an important instructional goal and was given priority in school activities; more time and better resources were allocated to achievement of this goal, (2) all programs had a key person who provided guidance and direction in reading (the majority of them principals), (3) basic skills were given great emphasis, (4) the materials used encompassed a relatively broad range of content, and (5) there was evidence of interchange of ideas among staff members in a congenial atmosphere of team effort.

Leadership in education generally, and in compensatory education programs specifically, is essential if a school district's compensatory education is to improve in any planned, systematic way.

Having a board of education that makes compensatory education improvement a priority for all district schools can be a tremendous asset. What happens is that when a board makes compensatory education improvement a high priority, immediately many school people begin to focus considerable attention on meeting that expectation. When school superintendents talk about what they do to strengthen a compensatory education program, they usually mention two things: (1) they keep informed about what's going on in the schools, and (2) they make sure principals and teachers have the knowledge and resources needed to develop an effective program. Compensatory education as a building (school) priority is the principal's responsibility. Cooperation and coordination are paramount to success and these are indispensable tools of able leadership.

Teacher training is important to a successful program. (Characteristics of good programs suggest, too, that training of the administrator is also essential.) All children appear to perform better with teachers who were educated in high quality colleges and universities. Low-income children appear to respond especially well to teachers who graduated from institutions which had higher academic ratings. General educational training, however, is not as effective as specific training oriented directly to compensatory education programs. Intensive study of methodologies and instructional techniques designed to respond to compensatory learning is necessary for successful teacher performance.

The findings indicate that certain key school inputs do make a difference in achievement growth. Targeting of school resources to the type of student who will benefit most is effective management.

The administrator has various resources available for better utilization in view of the findings. Some of the particular resources are (1) arrangement of class size [Glass and Smith (1978) found conclusive evidence clearly establishing that reduced class-size can be expected to produce increased academic achievement], (2) school size, (3) inservice training, (4) the use of paraprofessionals and teacher aides, and (5) parental and community involvement. The allocation and organizational management of human and material resources is a major factor in the success of compensatory education.

It has been shown that communication among all levels of administration in compensatory education programs must be consciously structured and monitored for success. The essential figures for initiating the compensatory education structure would be State Education Agency representatives, Board of Education members, superintendents, principals and compensatory education teachers who work together to define goals and specific objectives in measurable terms. Once these have been determined, the specific work plans to effect the goals falls largely to the key administrative figure in compensatory education programs, the principal. The principal works actively with the compensatory education teacher and the regular classroom teacher, serving as a guide to direction and evaluation of planning and progress. The superintendent's role is liaison between the Board and the principal. These links fortify the administrative structure's management efficiency, and facilitate accountability procedures. Full documentation at each level and a system of this documentation process is built in at the initial planning stage. Regularly established feedback channels from student up to the superintendent are also essential features. of a compensatory education program.

From an analysis of the research, the following recommendations are made:

1. The initiation of compensatory education programs should begin with a systematic planning approach at the highest level.
2. Once the priority of the compensatory education program has been established, resources should be allocated commensurate with the assigned priority status.
3. Communication among all levels of administration in compensatory education programs must be consciously structured and monitored for success.
4. The key figures should work together to define goals and objectives in measurable terms.
5. The principals should be used to develop specific work plans designed to effect the goals and objectives. In addition, the principal should work actively with the compensatory education teachers and the regular classroom teacher, serving as guide to direction and evaluation of planning and progress.
6. All work should be documented at each level, and a system of this documentation process should be built in, at the initial planning stage.* Also, regularly established feedback channels from the student up to the superintendent should be established.

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*Research Data Bank

Chapter II is a review of the best available literature reports on Home-School Relationships. Results obtained from studies which met the dual criteria of major emphasis on parent-involvement procedures and strong research evidence of pupil impact, lead to identification of the following major program characteristics, conclusions, and recommendations.

A strong parent involvement component can and does have a significant impact on pupil basic skills achievement outcomes. It would not be safe to conclude that a parent involvement component alone would be enough, however. Parental involvement is likely to be strengthened when combined with other components (e.g., curriculum). Most, but not all, of the researcher-based, parent involvement programs focus at the K-3 level.

The programs with the strongest research designs relating to pupil achievement are probably the federally funded Follow Through programs. Most effective among the Follow Through models appear to be those located at the University of Oregon (Engelmann-Becker Model), the University of North Carolina (Florida Parent Education Model), and the Southwest Educational Development Laboratory (Bilingual Education Model). Additionally the University of Kansas (Behavior Analysis) and the Responsive Education model (Far West Laboratory) had a significant impact on children from low income backgrounds. All of these Follow Through programs have strong parent involvement components and four of them (Oregon, Kansas, Responsive Education, and SEDL) have definite curriculum components as well.

ESEA Title I programs in Sylacuga, Alabama; Denver, Colorado; Hilho, Hawaii; Wichita, Kansas; Genesco, New York; Portsmouth and Newport, Rhode Island have strong parent involvement components and report a significant impact upon reading achievement, and other gains of low income children.

A variety of other programs in Washington, D.C.; Orange County, Florida; Atlanta, Georgia; and Philadelphia, Pennsylvania have obtained similar results. The research base of these programs is not as strong as that of the Follow Through programs and generally they do not go beyond the sixth grade.

School outreach is another vital factor of concern. While the goal of most parent involvement programs appears to be to get the home and school working together in a genuine partnership on behalf of the child, in the case of compensatory education populations, the successful parent involvement programs appear to be those where the school does the initial reaching out to the home to develop and maintain an effective relationship. This often involves school personnel helping and encouraging parents to develop the understanding and skills they need to fully participate in the partnership, and then "stepping back" and letting the parents assume a growing share of independence and responsibility.

The ways in which programs have involved parents seem to fall into six categories: (1) by-stander/observers (e.g., audience); (2) learners (e.g., workshop participants); (3) decision-makers (e.g., school advisory committee participants); (4) paid professionals (e.g., teacher aides); (5) classroom or school volunteers; (6) teachers of own child (e.g., as instructor of own child at home using material delivered through home visitation).

Involving parents as teachers of their own child appears to be the single most effective procedure for establishing a successful home-school relationship. This is most often accomplished through home visitation, in which case, a professional or paraprofessional demonstrates teaching materials and procedures to the parents on a weekly or bi-weekly basis. Effective home visits have been made by both professionals and paraprofessionals. In the case of the North Carolina/Florida Parent Education Follow Through Model, paraprofessional home visitors were selected and trained from the low income parent population served by the program. The teaching activities and materials taken into the homes were jointly developed and/or selected by the child's classroom teacher and the home visitor (who worked in the classroom as well as making home visits).

Other effective procedures for involving the parents are (a) in decision making (e.g., advisory council activities), (b) as learners (e.g., school sponsored courses in human growth and development and/or parenting), and (c) as volunteers and paid paraprofessionals. Such involvement seems to impact upon the parents' attitudes and values regarding education, and upon the way that parents function at home as teachers of their own child.

The effective parent involvement programs used a combination of the six kinds of parent involvement. An examination of five effective programs with strong research support [(1) North Carolina/Florida Follow Through Model, (2) Oregon Follow Through Model, (3) Bilingual Follow Through Model, (4) Children's Hospital Project, and (5) Orange County, Florida, reading project] indicated that all five involved the parent as teacher of own child. In addition, three of five involved the parent as a decision-maker and three involved the parent as learner. Two of five involved the parent as paraprofessional and two involved the parent as volunteer. One project relied exclusively on involving the parent as teacher of own child at home. The North Carolina/Florida Follow Through Model used all six types of parent involvement.

Based on these research findings, some implications and recommendations for developing successful home-school relationships are as follows:

1. Administrators, teachers, and support staff should be trained in the rationale and procedures for parent involvement.

2. Home learning materials and some type of delivery system should be developed to encourage parents to serve as instructors of their own children at home.

3. Parents should be trained in the purpose, functions, and leadership skills relevant to the decision-making type activities in parent advisory committees.

4. Parent volunteering programs should be established with parent assistance and advice.

5. Courses relevant to parent needs (e.g., parenting, human growth and development) should be initiated.

6. Parents should be involved in the recruitment of, and as candidates for, paraprofessional positions in the school.

7. Paraprofessionals (e.g., classroom teacher aides) should be employed and trained to function as home visitors as well as instructional assistants in the classrooms.

8. Teachers should be provided sufficient planning time to plan with home visitors, volunteers, etc., and to develop home learning materials.

9. Parents should be involved from the very beginning when developing or revising programs that require their participation or for which the administrator wishes the parents to feel involved in or take responsibility for.

10. Parents should be trusted to be good decision-makers and program participants. After fully informing them, they should be allowed, within accountability limits, to run their own activities. School system staff should learn to train and assist parents to assume their roles, but then to gradually withdraw and let parents assume ever-increasing independence in their participation.

11. Human relations training, designed to help administrators, staff, and parents to deal with racial, socioeconomic, and language differences, should be conducted.

While the above recommendations relate to practice, there are implications in the literature for research also. Some of those recommendations would be as follows:

12. Planned variation type research should be conducted in which parent involvement is employed as the independent variable.

13. As most parent involvement programs and research have had an elementary school (especially K-3) focus, programs and research aimed at middle and secondary school populations should be emphasized.

14. Research specifically designed to assess the relative impact of specific types (e.g., Gordon six types) of parent involvement should be conducted.

Chapter III is a review of the available literature on research relevant to the Instructional Organization and Procedure Level. The literature reveals four major characteristics which effect achievement in compensatory education programs. These are (1) diagnosis of strengths and weaknesses, (2) specification of goals and objectives, (3) instruction, and (4) increased instructional time and "engaged" time.

All pupils enrolled in compensatory programs do not have the same educational needs. For this reason, a diagnosis of each student to determine educational deficits is necessary. Once these educational deficits are known, it is important to relate to the students what their needs are in order for them to see the relevance of their particular program. It is also important for all teachers who work with these students to have ready access to the diagnostic information. This diagnostic information provides teachers with data needed to implement an intended instructional program.

Once the diagnosis is complete, it is necessary for the teacher to establish appropriate goals for the pupil and specify objectives necessary for reaching these goals. This means that each student's program should be carefully planned in order for class time to be used to maximum efficiency. Teachers who know the academic goals necessary to be accomplished by the students will enunciate the objectives that move students toward obtaining those goals. It has been found that there is a positive relationship between the teacher's emphasis on academic goals and academic learning.

The objectives for compensatory education programs need to be clearly stated. One research project found that greater increases in achievement take place when the compensatory education teachers develop clear academic goals and then develop specific learning objectives to achieve these goals.

Once the teachers have the diagnostic information and the goals are set, the next step is to structure a program geared to each student's education deficits. The program should concentrate directly on relevant materials and not on activities that involve little or no practice in reading. Expenditures of substantial amounts of time on activities that involve little or no practice in reading, results in diminished reading achievement. Students in an academically oriented curriculum achieve greater cognitive gains than those students in the less structured curriculum that emphasizes social objectives and the broadening of experience with the world.

Within the structured reading program certain characteristics of instruction are important. Those characteristics are questioning, monitoring, feedback, and materials.

An effective questioning strategy for compensatory education programs is to ask simple questions. The teacher should ask the question and then indicate which child is to answer. Incorrect answers should not be criticized, and if the student does not answer, the teacher should not press the student.

Compensatory education classes should be structured so that very little of the child's time is unoccupied. Effective teachers spend less class time discussing matters unrelated to the lesson content than ineffective teachers. Student achievement is higher where students spend less time working independently in small groups or doing seatwork. Achievement scores drop rapidly with increases in the percent of time students are not under direct teacher instruction. Child self-instruction is negatively related with achievement test scores.

Teachers should actively monitor students who are working independently and give careful attention to those students who need it. Less effective teachers in primary grades tend to assign seatwork and leave the students to work by themselves.

Effective teachers of low socioeconomic status students tend to pay more and more attention to individual pupils during seatwork and small group activity periods than does the ineffective teacher.

Positive feedback is highly desirable. Positive feedback has been found in high achieving classes and negative feedback is prevalent in low achieving classes. When students receive frequent negative feedback about their behavior, they tend to have lowering engagement rates which affects achievement.

Student who perform below level achieve better where they have low error rates. This suggests that it is very important for a student to use instructional materials at the student's achievement level. Teachers utilizing particular materials for compensatory education need to carefully determine various levels of reading and not to use only the achievement test form.

Increased instructional time is a characteristic affecting achievement which appears consistently in the literature. Instructional time means time during which the person is directed to the learning tasks and actively engaged in learning. It is the time when the student is paying attention and attempting to learn. Achievement is related to the amount of time required for instruction and time assigned for instruction. If the assigned time for instruction is not sufficient for the student to learn, then the pupil will tend to fall further behind. If the four characteristics are done appropriately, then the students should demonstrate achievement as determined on a standardized achievement test.

From an analysis of the research the following recommendations are made:

1. Teachers participating in compensatory education programs should be trained
    - (a) to perform a differential diagnosis on students in order ot determine their strengths and deficits.
    - (b) to establish appropriate goals for the pupils and specify objectives necessary for reaching those goals.
    - (c) to structure a program in such a way as to focus on each student's deficits.
    - (d) to use effective questioning strategies.
    - (e) to monitor effectively the compensatory education classes.
    - (f) to select appropriate materials for instruction.
    - (g) to engage effectively the student in learning.
2. The pupil-teacher ratio should not exceed one teacher for every 12 students, since students in compensatory education programs need increased learning time.
3. Compensatory education programs should be taught by licensed-certified personnel in that particular discipline.
4. Students enrolled in compensatory education programs did not acquire their deficits in math or reading over night. Therefore, remediation of a three- or four-week period is not likely to solve the problem. It is recommended that the minimum amount of time for a compensatory program be one semester with a full year of remediation being preferred.

Chapter IV is a review of the literature on aspects of classroom environment that relate to pupil learning, grouped into four separate headings: emotional climate, teacher management of behavior, teacher management of learning tasks, and teacher management of the thinking process.

Emotional climate has to do with expressions of warmth or coolness in the classroom, but there is evidence that it is important to distinguish sub-aspects of emotional climate, rather than treating it as a single dimension. First, expressions of negative affect such as criticism, scolding or demeaning by other pupils and by teachers are strongly negatively related to pupil achievement gain. That is, the more these negative behaviors occur in classrooms, the less pupils learn. Further, there is evidence to indicate that minimizing negative affect is more important for the learning of low socioeconomic status (SES) pupils than for high SES pupils. This presents a special problem in that the low SES pupil is likely to come to school with behavior patterns which are not congenial to the middle-class teacher, who is likely to respond critically. So, the pupil to be most affected by negative affect is most likely to meet it.

If emotional climate were considered to be a single dimension, increased pupil gain would be expected where more positive affect is expressed, and educators have, in fact, held this belief strongly. However, the results do not support that expectation. In a major review of 14 studies, expressions of positive affect were as often negatively related as positively. However, many of the positive relationships came from Project Follow Through, in which positive affect was most frequent in classrooms where there was also close pupil engagement in the learning task. Therefore, pupil task involvement may have been the facilitating influence, rather than the positive affect.

In contrast, two recent analyses specifically focused on both teacher and pupil expressions of more positive affect and found it to be negatively related to pupil gain. That is, the more positive affect that was expressed in classrooms, the less pupils learned. The above results may reflect a substitution of an emphasis on affect for an emphasis on task. This does not mean that a teacher should not respond warmly to a child. It probably means that classrooms, where expressions of positive affect are unusually frequent, are not especially functional for learning. Several studies in this area raise serious doubts about the use of praise, and these studies suggest that the use of praise increases dependent, conforming behavior in pupils.

It is clear that the classroom should not be negative and critical; but evidence is lacking to support the hypothesis that it should be high in expression of positive affect, and some evidence suggests that it should not be. So, the conclusion which appears to be safest is that the classroom should be emotionally neutral--matter-of-fact and task-oriented--that affect expression of either kind should not be prominent.

Teacher management of behavior has to do with the amount of freedom which pupils have to socialize, to subgroup, or to move about in the classroom. That is, it has to do with the level of nonsubstantive, physical activity that occurs in the classroom. Results are relatively consistent in indicating that the less physical activity there is in the classroom the more pupils learn. It is not possible to find in those results any evidence that activity which has to do with some learning task is more functional than activity which is not task related.

Intuitively, it seems as though there must be some limit to the closeness of control which a teacher should exercise over pupils to avoid creating a "prison-like" atmosphere in the classroom which would be counterproductive. Perhaps the reason that no evidence of this effect appears in the findings is that teachers as a group have been wise enough not to create situations which were so extreme as not to facilitate learning.

Teaching management of learning tasks has to do with the relative balance between teacher assignment of learning activities to pupils and monitoring their progress in carrying them out, in contrast to pupils having some degree of choice in what they are to do and how they are to do it. At one extreme, there are classrooms in which pupils are free to choose what they want to do for a considerable portion of the classroom day. Occasional organized activities occur, but these are not a major part of the day. At the other extreme are classrooms in which the pupil has very little time during most of the day in which he has any choice about what he is to do, how he is to do it, or when he is to do it. In the lower grades, the day is likely to be "lightened" by such activities as story time, nap time, or show and tell in the afternoon, but this is variable.

Studies in this area of classroom behavior seem to be of two types: (1) those that distinguish the level of complexity of the learning outcome and (2) those that do not. Findings for the first type indicate that where the learning task is at a low level of complexity, higher degrees of teacher control appear to be functional, sometimes with greatest learning occurring where teacher control is highest. But where the learning objective is a complex one, some findings indicate that teacher control of pupil activity can be too close for a maximum of learning to occur. The results suggest, rather, that pupils need some degree of freedom to work on their own, to follow different modes of attack on the problem, to apply ideas of their own, to test alternative approaches--in short, they need some freedom of independent approach to the problem--but within the context of a learning task which the teacher has helped structure. Apparently, pupils do not learn to think best where the entire learning process is prescribed, not even first grade disadvantaged pupils. However, findings from the second type (no distinction of level of complexity of learning outcomes) indicate that the closer the control exercised by the teacher (and the curriculum), the greater the pupil learning which occurs. That is, pupils learn best if the teacher assigns the task, gives pupils feedback which keeps them organized in their activities, monitors their progress, and evaluates the results. It appears that the first type may be of more practical use to the classroom teacher, as it allows for varying behavior to suit a particular set of circumstances.

Teacher management of thinking has to do with two aspects of teacher control--the freedom pupils have to explore or suggest alternative ideas and/or to the cognitive level of the questions asked by the teacher--that is, do teachers ask simple factual questions, or do they ask questions which ask pupils to apply principles or put ideas together in new ways? Results for this area of teacher control of pupil thinking parallel those for control of pupil learning tasks. For complex thinking process for pupils, intermediate amounts of teacher control seem to be most functional. But if the objective for today's lesson is learning the multiplication tables or a list of fifteen spelling words, a drill session in which pupils are moved from question to question in rapid fire fashion, with no freedom to explore ideas, is an appropriate and effective learning experience.

Some implications and recommendations from this area of research are

1. Teacher training programs which evaluate teachers' competency in the classroom on the emotional affect dimension as a single continuum are in error. The amount of positive affect has not been proven by the research to be a reliable indicator of learning growth. Negative affect has been shown strongly negatively associated with pupil gain, but the opposite statement regarding positive affect has not been proven. Until further research on positive affect in the classroom is carried out, it might be sound to limit its application in competency based evaluations of teachers in classroom behavior.

2. The restriction of physical activity in the classroom by effective teachers in compensatory education programs would seem to imply that permissiveness and the open classroom type of behavior management is to be avoided in the compensatory education classroom. The rationale here parallels many of the other research findings, where low socioeconomic status students and low achieving students perform better in more structured situations.

3. Distinguishing levels of complexity of learning outcomes is of definite value in determining appropriate teacher strategies for management of the learning task. Highly structured teacher direction is desirable when low level of complexity outcomes are involved but less structured teacher direction is required in the case of high complexity learning outcomes.

4. The amount of teacher control in relation to student behavior must be distinguished carefully on two levels: the first, physical behavior control; the second, student thinking-learning process control. In the case of the first, the teacher should be directive and restrict physical activity, in the second case, depending on the level of desired learning outcome complexity, the teacher should adapt the degree of control accordingly.

In summary, the classroom environment which is effective for learning is one in which there is little emphasis on negative emotional expression, and little physical movement or socializing. For lower grade pupils learning basic skills, close teacher control and direction is an effective style, but for higher grade pupils and more complex learning, pupils need a balance between pupil choice and self-direction, and teacher structuring of the learning task and thinking process.

CHAPTER I

ADMINISTRATION AND ORGANIZATION

Introduction

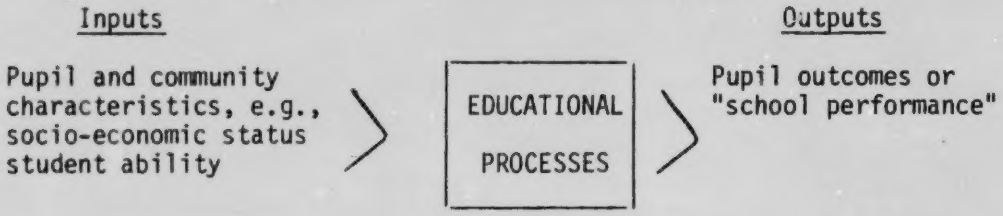
In the last decade there has been a growing public concern for the adequacy and efficiency of compensatory education programs. Large sums of public money are expended annually and taxpayers ask if increased expenditures really mean better education. When one considers that 8% of the gross national product is consigned to public education, the question is of no little importance. How this money is spent, how it is distributed and what benefits are derived for the public become leading points of public inquiry. It is this same public concern that has given rise to the accountability movement throughout the country. School administrators are under increasing pressure from government and taxpayers to provide more effective and efficient management. Accountability has become a paramount issue at all levels of public education.

The problem is not just one of management however. The definition of what public school education is, what its goals are, and how they should and can be best effected is not clearly seen by all interested parties in the same way. It is a matter then of definition. The government, taxpayers, and educators must agree on what adequate and efficient public education is and how the public schools may best effect whatever that is. Until this is clear, evaluation of compensatory education efforts or any public education efforts will be of little utility toward the intended goals of improvement.

To judge what is adequate education implies a concept of schooling in which criteria of student learning can be identified. While there is some disagreement as to the precise relationships involved, a common way to approach the issue of adequacy is to envision the school as a productive unit. Thomas (1971) notes

> Once we are willing to accept the notion that education is produced we can talk about alternative methods of production. The acceptance of the notion that there are alternative production methods leads to an acceptance of resource allocation as a critical responsibility of administration. (p. 3)

The school as a productive unit normally implies a systemic concept of education based upon measures of input and output. Schools are commonly conceptualized as


Inputs
Pupil and community characteristics, e.g., socio-economic status student ability
EDUCATIONAL PROCESSES
Outputs
Pupil outcomes or "school performance"

School characteristics

Adequacy has been identified with improved pupil performance or increased learning outcomes. Numerous output measures have been used in past adequacy studies to determine performance. The most acceptable measure has been standardized achievement scores (Sexton, 1961), including reading skills (Burkhead et al., 1967). Many studies, including this paper, have assumed the critical interrelationship of skills and other achievement scores to best express pupil performance (Harris, 1962). The policy implication for identifying concrete measures of production has been suggested by Benson (1967) when he recommended that the California legislature establish minimum achievement standards and compute each district's cost for programs in a manner that would allow each district to meet or surpass them.

Numerous input measures are related to indicators of schooling performance. The input measures most often reflected information about the characteristics of the pupils, the schools, and the communities in which they are located. Many people are cognizant of the confusion that exists over the proper input indicators that show true relations to productivity measures. The famous Coleman et al. (1966) study concluded that school characteristics made limited difference in learning when considered with home-community influences. However, the Coleman findings have been strongly challenged on both conceptual (Mosteller and Moynihan, 1972) and methodological (Bowles and Lewin, 1968) grounds. Cremin probably best stated the true situation in this way, "It is not that schooling lacks potency; it is rather that the potency of schooling must be seen in relation to the potency of other experience that has occurred earlier and is occurring elsewhere" (Cremin, 1976, p. 8). School variables do, of course, affect performance outcomes. However, it is also recognized that variables which affect learning involve combinations of in-school as well as out-of-school influences (Johns and Morphet, 1968) rather than some single criterion. Further, the manner in which resources are allocated to effect performance is more important than gross amount. These lessons mean that adequacy involves the identification of critical input combinations, then judging the capacity for educational resources to make a difference, based upon the manner in which they might affect present patterns of allocation.

A representative study of school characteristics found to influence pupil performance is the Kiesling (1967) study which found achievement gains related to such variables as average class size, average years teaching, and percent of graduates going on to college. Benson (1967) identified teacher salary, experience, and per pupil expenditure as key school inputs. Out-of-school variables identified in previous studies include family income level, social class or family background, occupation, length of residence, parents associations, education level and race (Goldstein et al., 1967).

In this paper the administrative structure is examined as the controlling force of those key school inputs only. Emphasis is given to the administrative leadership function and identification of characteristics of successful planning and management practices (external to the classroom) in compensatory education programs. Included are a number of successful approaches now being used by administrators who have taken a more active part in supporting and emphasizing compensatory education programs. Relevant research and contemporary thought on the above are cited and the paper concludes with recommendations for implementation of compensatory education programs.

The Importance of Leadership in the Administrative Structure

In education, the search for those factors that lead to effective schooling for all children has been especially intense. Since the early 1970's at least, many researchers have been examining successful schools and comparing instructional programs in an attempt to isolate components of excellence.

The USOE (1976) Division of Compensatory Education, in fact, has cited eight common characteristics of successful compensatory education programs with regard to administrative leadership. These are

> Systematic planning which begins with formal policy decisions to increase support for quality compensatory programs. "These decisions are the basis for the necessary partnerships among board members, educators and parents as they plan the program's design, implementation and evaluation."
>
> Clear objectives which must be clearly written and stated in specific measurable terms. Instructional techniques and materials must closely relate to those objectives.
>
> Intensity of treatment which includes the amount of time the child spends in the program and the staff/pupil ratio within the classroom. Here, USOE cited the wide variance in the number of instructional hours per week in the programs studied (from three-fourths of an hour per day, twice weekly to seven hours a day, five days a week). Likewise, the staff/pupil ratio varied from 1:1 to 1:15.
>
> Attention to individual needs which includes a careful diagnosis and an individualized plan for each student.
>
> Flexibility in grouping which allows staff opportunities to provide small group instruction and to teach frequently on a one-to-one basis. USOE notes that when group instruction was part of the daily program, it tended to be more effective if students were not confined to the same group for more than several days without reassessment of both the teachers' and students' strengths.
>
> Personnel management which allows key staff personnel to work individually with teachers in the classroom. USOE stresses the need for much coordination and cooperation among staff members and a well designed inservice program.
>
> Structured program approach which stresses sequential order and activities. Pupils must also receive frequent and immediate feedback.
>
> Parental involvement which means the home must support what the child learns in school. Parents must also be committed to work as partners with school personnel and students. (pp. 10-11)

These eight common characteristics related to facets of educational management coincide with the general findings in the papers and research studies examined in this report.

With respect to excellent reading programs in particular, five major points additionally could be identified providing insight into successful administrative practices (USOE, 1976):

> Reading was specifically designated as an important instructional goal and was given priority in school activities; more time and better resources were allocated to achievement of this goal.
>
> All programs had a key person who provided guidance and direction in reading (the majority of them, principals).
>
> Basic skills were given great emphasis.
>
> The materials used encompassed a relatively broad range of content.
>
> There was evidence of interchange of ideas among staff members in a congenial atmosphere of team effort. (p. 14)

George Weber (1971), Associate Director of the Council for Basic Education, was one of the first to address the issue. Weber found four inner-city schools, all of which had demonstrated high levels of reading achievement on standardized tests, and began looking for other characteristics which the four schools shared. What he found in all four was "strong leadership." Leading each school was a principal who had a definite point of view about what kind of school climate and instructional procedures led to high achievement, and who was able to communicate those expectations to classroom teachers. All four schools were orderly without being repressive; all placed strong emphasis on acquiring, developing, and assessing reading skills; and--perhaps most importantly--all had a staff who had high expectations for all their students.

Three years after Weber's work was published, the State of New York Office of Education Performance Review (1974) published a study that took a different approach. Instead of looking for clues to effective schooling in only schools that had demonstrated high achievement in reading, the

New York Study compared two schools that differed markedly in reading achievement. Both were inner-city schools in New York City. The students in one school were doing well in reading, while in the other school they were not.

Several findings of the New York Study are of particular interest. Again, the principal and other administrative staff do seem to make a difference: "The more effective inner-city school was led by an administrative team which provided a good balance between both management and instructional skills; . . . (they) had developed a plan for dealing with the reading problem and had implemented the plan throughout the school" (p. 22), noted the New York Study.

Also, again confirming Weber's findings, the New York Study pointed to the importance of expectations. In the low-achieving school, teachers were more likely to attribute children's reading problems to non-school factors--to things they as teachers felt were outside their control. Because teachers were pessimistic about their ability to make any impact, they created an environment in which children failed and were expected to fail. In turn, "Children responded to unstimulating learning experiences predictably--they were apathetic, disruptive, or absent" (p. 23).

In 1977, a larger, more comprehensive study that looked at how school characteristics related to reading and mathematics was published. Researchers Wilbur Brookover and Lawrence Lezotte (1977), using data collected by the Michigan Department of Education, studied the factors in two schools in which student achievement had been steadily declining and in six schools in which scores were progressively improving.

Again the picture was the same. Principals in the improving schools acted differently from those in the declining ones. In the improving schools, the principals were likely to be more assertive in their leadership role; they were likely to be "more of a disciplinarian," and, perhaps most important of all, they assumed responsibility for the evaluation of achievement in basic skills.

Describing the behavior of principals in the declining schools, Brookover and Lezotte (1977) stated that "The principals in the declining schools appear to be permissive and to emphasize informal and collegial relationships with teachers. They put more emphasis on general public relations and less emphasis upon evaluation of the school's effectiveness in providing a basic education for the students" (p. 16).

In considering how staff expectations affected student performance, Brookover and Lezotte found clear differences between the two types of schools. Teachers in the improving schools tend to believe that all of their students can master basic reading and mathematics skills, and if they do not master these, then the teacher, not the parents or the student, must assume responsibility.

Interestingly enough, though, for all the progress they are making with their students, teachers in the improving schools are less satisfied than those in the declining ones. Brookover and Lezotte explain that "The higher levels of reported staff satisfaction and morale in the declining schools seem to reflect a pattern of complacency and satisfaction with the current levels of educational attainment. On the other hand, the improving school staffs appear more likely to experience some tension and dissatisfaction with the existing condition" (p. 16).

The Importance of Leadership Emphasis on Priority of Compensatory Education

Leadership, in education generally, and in compensatory education programs specifically, is essential if a school district's compensatory education program is to improve in any planned, systematic way. Whether provided by a school principal, director of instruction, reading specialist, or superintendent of schools, it is imperative that compensatory education become a priority. True, individual teachers in classrooms are important, but long-term, district-wide efforts can be manifested and reinforced only if administrators and boards of eduction make achievement in basic skills a priority.

Why make compensatory education a priority in the schools? What are the issues--the reality--that administrators must be aware of in trying to establish a strong, vital compensatory education program in the schools? How can administrators build a strong case for the importance of a compensatory education program?

In a paper presented at a recent conference, Ronald Edmonds (1978), research associate on the faculty of education at Harvard University, summarized what his research, and that of others, had to say about indispensable characteristics of effective schools. The first characteristic named was strong administrative leadership. Without strong leadership, Edmonds said, the disparate elements of good schooling can be neither brought together nor kept together. Leadership must be coupled with a climate of general expectation in which no child is permitted to fall below minimum levels of achievement. Atmosphere within the school should be orderly without being rigid, quiet without being oppressive.

How do effective schools get that way? According to Edmonds (1978), it is "partly by making it clear that pupil acquisition of basic school skills takes precedence over all other school activities" (p. 5).

As a number of studies have shown, there is clear evidence at all levels of a decline in students' reading, writing, and computation skills. After a century of upward movement, various reports have pointed out that academic achievement is now at an all-time low. The articles further indicated that there is no sign of leveling off. Findings concerning this dramatic decline include the following:

--Children in large cities are underachieving in reading by as much as 40%.

--The average elementary school child has some need of special help in basic skills. Eleven percent (11%) of 17 year-olds are functional illiterates.

--Although a disproportionate percentage of poor and minority students are scoring low, the decline encompasses all economic and ethnic groups, affecting both public and private schools in all regions of our nation.

--Recent societal changes have had a serious impact on the educational system. For instance, by the time a student graduates from high school he or she has had 13,000 hours of school exposure but 15,000 hours of television viewing.

Shane (1977) reported an interview with W. Willard Wirtz, chairman of an independent 21-member advisory panel charged with investigating the decline in Scholastic Aptitude Test (SAT) scores during the past 15 years, which sheds a good deal of light on the decline in reading, writing, and computation skills. In the interview, Wirtz stated that there has been nothing like the steady drop-off in scores of the last 15 years. He warned that this drop in scores warrants the close attention of everybody in this country who is interested in education.

According to Wirtz and the advisory panel the decline was attributed to the following: (1) the changes in the composition of the test-taking population during this period, (2) relaxed standards--learning standards--both in the schools and in society, (3) mutations in family living, (4) impact of television, and (5) a decade of distraction.

Wirtz's advice to administrators concerned about reducing and reversing the present downward performance trends is to try to restore or to build anew the relationships between the teacher in the school and the teachers at home--a closer home-and-school alliance, with the thought and the expectation that these problems have to be worked out on a community basis. "It is a great mistake to count on the schools being able to do it all by themselves" (Shane, 1977, p. 86).

Wirtz concluded that "there are many important things that can't be proved, things that statistics won't tell. And there's simply got to be broader attention given to whether we are--in education and in this whole society--putting the right emphasis on the right things" (Shane, 1977, p. 86).

This is the reality; these are the issues with which administrators must deal if basic skills are to be emphasized. Making compensatory education a priority, and developing and maintaing viable programs can present a significant challenge. It can mean restructuring priorities and, in some instances, making the painful decision to eliminate some activities.

The criteria for determining whether or not compensatory education is a district priority can be reduced to three elements: time, money, and quality. For the administrator, the tasks are (1) to review the amount of time spent in compensatory education; (2) to review the amount of money spent for the compensatory education program; and (3) to review the quality of the reading program.

A few specific questions may assist an administrator interested in using the criteria to place the compensatory education program in perspective:

--How much administrative and specialist time is spent in planning, monitoring, and servicing the compensatory education program?

--How much money is provided for teacher inservice?

--How much time and money are earmarked for training in managing the compensatory education program?

--Where do the specialists spend their time--helping teachers and children, or coordinating administrative detail?

--What kinds of materials are purchased and what criteria are used for selection?

--How are parents involved in the compensatory education program?

Making sure reading skills are acquired requires further analysis of the school's program. One possibility is to ask each school site to review the program in light of several additional ingredients. Does the program have

--Well-defined, measurable objectives for the district, the school, and the child?

--Approaches and methods based on theory and understood by teachers and principals?

--Encompassment of all the communication skills, since reading is not isolated from thinking, speaking, writing, and listening?

--Techniques and methods of diagnosing, prescribing, and informing students of strengths? What kinds of student profiles are available?

--Broad components of sequential steps in word recognition, comprehension, vocabulary, and other essentials?

--Specific motivational strategies to keep students' interests?

--Provisions for students from varying achievement levels, and opportunities for their success and progress?

--Techniques for insuring continuity of methods and materials for individuals and groups within grades and from grade to grade?

--Methods of ongoing documentation and assessment of individual student performance?

--Inclusion of all subjects--social science, math, science? Is "learning to read and reading to learn" being stressed?

--Provisions for evaluation--formal or informal?

--Provision for evaluation--program and product?

The aim of a compensatory education program is to give every child a chance to master basic skills. Mina Bayne,* elementary curriculum chairman of the University School, University of Wyoming, explains that "Small pockets of excellence--individual teachers who consistently do an outstanding job in teaching reading--are certainly needed. But you need more. Everyone--teachers, administrators, and citizens alike--has to feel that reading's important if you're every going to spread those pockets of excellence."

One notion of how change occurs holds that those in authority have to want it to happen, to be willing to work consistently to nurture it, and, if necessary, to demand that it occur. Levels of authority in schools include boards of education, school superintendents, and building principals. Each has a role in helping make compensatory education an instructional priority.

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*Mina Bayne, personal communication.

School Boards That Expect Improvement

Having a board of education that makes compensatory education improvement a priority for all district schools can be a tremendous asset. What a board does has considerable impact on everyone--administrators and teachers alike. Donald Thomas,* superintendent, Salt Lake City (Utah) School Districts, says that "A board can set the tone for a district. What happens is that when a board makes compensatory education improvement a high priority, immediately many school people begin to focus considerable attention on meeting that expectation."

Once compensatory education improvement is established as a priority, a plan of action usually follows. In many districts, directors of titled reading programs or teachers who have been instrumental in developing effective reading practices are invited to lunch with a number of the board. In others, board members come to school to watch a compensatory program in action.

Monitoring compensatory education performance or setting performance standards are other ways many boards of education act to try to improve reading achievement. "We have a board that is convinced by evidence," says Edmond Cody,** superintendent of the Northside Independent School District, San Antonio, Texas. "They don't only want to know what I'm basing my thinking on. They want to see results. When you talk about how effective you think your reading program is, they want to be able to see the test scores going up."

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*Donald Thomas, personal communication.

**Edmond Cody, personal communication.

The Superintendent's Role

When school superintendents talk about what they do to strengthen a compensatory education program, they usually mention two things: (1) they keep informed about what's going on in the schools, and (2) they make sure principals and teachers have the knowledge and resources needed to develop an effective program.

Exactly how a superintendent keeps informed about compensatory education activities in district schools depends to some extent on the size and organization of a district. However, even in many larger school districts, superintendents arrange to meet with building principals to discuss the latest developments in compensatory education programs in their buildings. At these meetings, principals outline the strengths and weaknesses of their compensatory education programs; listen to, react to, and offer assistance to other principals; and also let the superintendent know what is needed to do an even better job. Perhaps as important as the substance of these meetings is the message they convey. According to Edward Feck,* superintendent of education, Diocese of East Lansing (Michigan) School Office, "When a superintendent meets with principals about reading efforts rather than managerial matters, the superintendent is implicitly saying, 'I don't buy the idea that a principal is just supposed to be some sort of building manager. If a reading program is going to succeed, the principal has to be directly involved in seeing to it that things happen.'"

Simply designating compensatory education as a district's priority, without providing the wherewithal needed to achieve excellence, can be frustrating or even damaging. "Goals are just window dressing unless you back them with resources. You know your financial problems are never going to go away," Donald Thomas,* superintendent, Salt Lake City, Utah, said. "So, if you're serious about wanting to improve reading, you're just going to have to readjust your existing resources, or find new resources to provide the materials, the inservice, and the personnel needed."

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*Edward Feck, personal communication.

Compensatory Education as a Building Priority

"It doesn't take teachers long to know where a principal's values lie," states Gil Newton,**principal Maple Elementary School, Jeffersonville, Indiana. "All they need do is watch. How principals spend their day, whom they see, what they talk about--they're all good indicators of the importance principals attach to reading."

To demonstrate that reading is important, a number of principals throughout the country have begun to use a new variant of the ordinary teacher conference. Meeting individually with teachers, their discussion centers on individual students who are having reading difficulties.

Such conferences are not chance encounters. For both principal and teacher, preparation is required. The teacher is asked to diagnose each student's reading difficulties, and then to write individual instructional prescriptions based on that diagnosis. The principal then reads the learning prescriptions and, if necessary, observes individual children as teachers work with them.

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*Donald Thomas, personal communication.

**Gil Newton, personal communication.

The purpose of the conference, then, is to review the prescriptions and the assumptions upon which the prescriptions are founded. Ralph Lockwood,* Principal, Tarpey Elementary School, Clovis, California, describes how teacher conferences work at his school: "We work on factors we have some control over. For example, if we think that Johnny can't read because he's not motivated, okay, that's all right to say. But then we'd better be able to come up with a plan to motivate him. We're concerned about teaching reading, so we work on all factors that are under our control. Unless we focus on things we can do, kids can begin getting lost in the shuffle."

This is not the time for depression nor defensiveness. It is, instead, the time to restructure priorities so that in this affluent nation of ours, education--quality education--becomes a reality for all children.

"It's like pulling teeth to get anything moving in some buildings," a reading specialist said. "In others, though, with the same techniques, the same materials, progress is swift and enthusiasm high."

Admittedly, the factors that allow a reading specialist to gain a toe hold in one building and a stubbed toe in the next are many and complex. Still, one factor has been noticed repeatedly by staff who provide in-service sessions for school principals: In schools where principals have some basic knowledge of reading and are familiar with how to plan a reading program, the reading programs have a good chance of succeeding. In schools in which principals lack content and planning skills in reading, the program is likely to flounder or to require considerable technical support to keep it from collapsing.

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*Ralph Lockwood, personal communication.

To assist principals and other school administrators who wish to acquire a greater understanding of what a good reading program is like and what it takes to run one, the National Right to Read Office has supported establishing guidelines for the development and evaluation of reading programs, and is now developing an inservice program for principals of elementary schools.

Suppose that as a principal you are committed to designing a really first rate reading program for your building. What do you do? How would you begin? The question of what constitutes excellence in a reading program is one that has received considerable attention in the past five years. With funding from the National Right to Read Effort, committees made up of school administrators, classroom teachers, reading specialists, and citizens have met in many states to draft a set of statewide or regional standards to guide the development of new reading programs or to evaluate existing ones.

Why are standards--or "criteria of excellence" as they are generally called--needed? Marion McGuire* of the University of Rhode Island, who worked closely with the former New England Consortium for the Right to Read Effort to help develop the criteria adopted by five New England states, explains: "We found that while administrators wanted to strengthen their reading programs, many were very uncertain about what a strong program ought to be like. They seemed to be asking 'What do we do?' 'What's expected of us?' That's where the criteria came in. They functioned as a working definition of what quality in a reading program meant."

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*Marion McGuire, personal communication.

While the language, content, and organization of criteria of excellence vary from state to state, there are a number of features repeatedly identified by many states as hallmarks of a good reading program:

--School people and members of the community are committed to the importance of literacy and the enjoyment of reading.

--A plan exists for organizing and managing the reading program.

--Provisions are made for assessing and reporting progress made.

--Attention is given to hiring competent staff, and to providing inservice education.

--Adequate and appropriate instructional materials are provided.

--Instructional approaches and procedures that reach all learners, however different, are used.

What ever the particular, the criteria of excellence provides a needed tool for administrators who wish to know how the elements in their own reading program measure up to some ideal. A copy of the criteria of excellence used in a particular state may be obtained from the state Right to Read Office.

In addition to the consideration of key questions, a systematic plan can be enormously helpful in reviewing a district's compensatory education program. First, the administrator needs to learn as much as possible about the existing compensatory eduction program. For instance, what assumptions does the program make about how basic skills are learned and taught? What materials are used and how are they being used?

Next, the administrator decides which kinds of programs will serve the students best. The most effective school staff as well as citizens in the community may be involved to determine standards and to set guidelines for materials selection.

Then, with district-wide backing, the administrator provides each school an opportunity to develop and to implement its own plan. Once the program is in operation, opportunities for modification of the program based on continuing evaluation need to be provided. On the district level, specialists and others ought to have a system for determining which program components work under given circumstances, and then for disseminating those effective components.

Finally, the program ought to include a system of accountability. Each administrator ought to have a way of determining at what level the district or school is achieving basic skills prior to June or the close of school.

Steps and procedures for reviewing a compensatory education program are relatively easy to write. They ought not to give the illusion of easy answers or simple solutions. There are none. Cooperation and coordination are paramount to success and these are the responsibility of able leadership.

The Importance of Leadership Management of Communication Network

In human organizational systems, communication is a prime managerial concern. Successful completion of elected goals is dependent on the communication network. While admittedly there is in every organization an informal and formal system of communication, only those aspects of formal communication directly under the control of administrators are considered here. The larger and more complex the system, the greater is the need for clarity in that network. This is analogous to the feedback function in general systems theory. Evaluation of on-going procesures and means for effecting subsequent maintenance or modification of these must be built into the administrative structure.

It is incumbent upon administrators to clarify and to understand the responsibilities of all school people--principal, reading specialist, librarian, teacher, and support staff--and then to agree on what each can provide to focus on the individual child's need. To work together effectively, the team must plan together, must assess and implement together, and must evaluate together. For too long, many in top leadership positions in schools have backed away from defining what is expected and of whom it is expected. Teamwork within the district will work only when expectations are clear, and when goals, objectives, timelines, programs, and evaluations are established by everyone involved, and organized in ways to provide coherency to the compensatory education program.

In addition to involving school people in the compensatory education program, administrators have a special responsibility to strengthen and enhance the natural partnership that exists between parents and schools. Closer ties through parental involvement has, in many areas, for the first time, given educators the chance and the challenge to explain what they are trying to do. Also, it has given parents and the community a chance to judge whether or not schools are succeeding in accomplishing what they seek to do.

In this regard, the recent results of the ninth annual Gallup Poll on the public's attitude toward public schools deserve serious consideration. The poll revealed that throughout the nation there is wide acceptance of the view that parents must work closely with the schools if students are to reach their full educational potential. According to the poll, more than three in four adults say they approved of the idea of offering courses to parents as a regular part of the public school educational program.

"It probably is no exaggeration to say that the next great advance in education will come when parents and teachers work as a team, with parents taking full responsibility for problems that arise in the home," as stated in the poll. School staff working collaboratively with parents and community people can be a potent force in dealing with reading, writing, and computation problems.

Administration as Organization and Allocation of Resources

When the administrative function in compensatory education programs is viewed as the organization and allocation of resources, equity in educational opportunity is a matter of correct targeting of certain resources towards the disadvantaged low achiever. In a study by the Department of Research of the Federal Reserve Bank of Philadelphia (Summers and Wolfe, 1975):

> The major finding, in contrast to some well known studies, is that school inputs (such as class size and teacher experience) do help students grow in educational achievement and can compensate for the disadvantages of poverty, race and low ability. (p. 6)

Some of the key school input variables, which do make a difference, have been found by researchers to include class size, school size, achievement mixture, disruption incidence, organizational climate of school, racial balance, teacher experience, higher-rated college background of teacher, intensive inservice teacher training and supervision, teacher morale, degree of accountability, formal communication patterns in compensatory education programs, principal's leadership style, highly individualized instruction, amount of resources available to compensatory education programs, use of paraprofessionals and teacher aides, parent involvement, cost/student/teacher, and cost/student/reading gain.

Key School Inputs Which Do Make A Difference

Class size

The effect of class size on pupil achievement gain has been a longstanding controversial issue in the educational community. Teachers allege that as classes get "smaller," education gets "better." Administrators, however, address a less pleasing aspect of this alleged qualitative advantage: as class size decreases, educational cost increases. Those in charge of financing education demand substantive proof of a positive return on the costly investment of added teaching personnel implicit in the class size issue. Traditionally, however, such evidence has been weak and inconclusive as a basis for any major policy change.

As recently as summer of 1978, the New York Times gave front page coverage to a study published by Educational Research Service, Inc. (Parwoll, 1978). This organization is funded jointly by the American Association of School Administrators, the Council of Chief State School Officers, and several other professional administration groups. The Parwoll report, a summary of recent research on class size, continued in the rather gloomy tradition of all class size research arriving at some of the following conclusions:

> Research findings on class size to this point document repeatedly that the relationship between pupil achievement and class size is highly complex.
>
> There is general consensus that the research findings on the effects of class size on pupil achievement across all grades are contradictory and inconclusive.

> Existing research findings do not support the contention that smaller classes will of themselves result in greater academic achievement gains for pupils. (Parwoll, 1978, pp. 68-69)

In a more authorative analysis funded by a grant from the National Institute of Education, Department of Health, Education, and Welfare, Glass and Smith (1978) found conclusive evidence clearly establishing that reduced class-size can be expected to produce increased academic achievement. Glass and Smith, using nearly 80 studies of the relationship between class-size and achievement, integrated some 700 comparisons on the achievement of smaller and larger classes based on data accumulated from nearly 900,000 pupils of all ages and aptitudes studying all manner of school subjects. Highly complex methods of regression analysis were used to integrate the comparisons into a single curve showing the relationship between class-size and achievement in general. This curve revealed a definite inverse relationship between class-size and pupil learning. Similar curves were derived for a variety of circumstances hypothesized to alter the relationship between class-size and achievement. Virtually none of these special circumstances altered the basic relationship; neither grade level, subject taught, nor ability of pupils. Only one factor substantially affected the curve, namely, whether the original study controlled adequately (in the experimental sense) for initial differences among pupils and teachers in smaller and larger classes. There were nearly 100 comparisons of achievement from the well-controlled studies which formed the basis of the researchers' conclusions about how class-size is related to academic achievement.

The most accurate representation of this relationship is a curve derived from the 100 comparisons from well-controlled studies. The curve appears on Figure 2. As class-size increases, achievement decreases. A pupil, who would score at about the 83rd percentile on a national test when taught individually, would score at about the 50th percentile when taught in a class of 40 pupils. The difference in being taught in a class of 20 versus a class of 40 is an advantage of 6 percentile points. The major benefits from reduced class size are obtained as size is reduced below 20 pupils.

This is the first major research study which has produced, through sophisticated statistical analyses, findings which merit serious attention from educational policy makers and administrators. The researchers also indicate that achievement gain is not the only variable that warrants attention for policy makers. There are other important gains, less tangible than student achievement gains, which are also being examined. Some of these relate to the Indicators of Quality instrument developed by the Institute of Administrative Research in collaboration with public schools, employing some 51 polarized items in an attempt to measure the quality of the educational process. Direct observations by trained scorers are collected, scored, and summed to produce an overall Indicators score, as well as a variety of subscores, e.g., by each of the key concepts, teacher, pupil, and teacher-pupil interaction, for a given district or any of its several subdivisions. Glass and Smith are presently doing a meta-analysis of studies relating class size to classroom processes, student attitude, and teacher satisfaction. Results of this study should be available by spring of 1979.

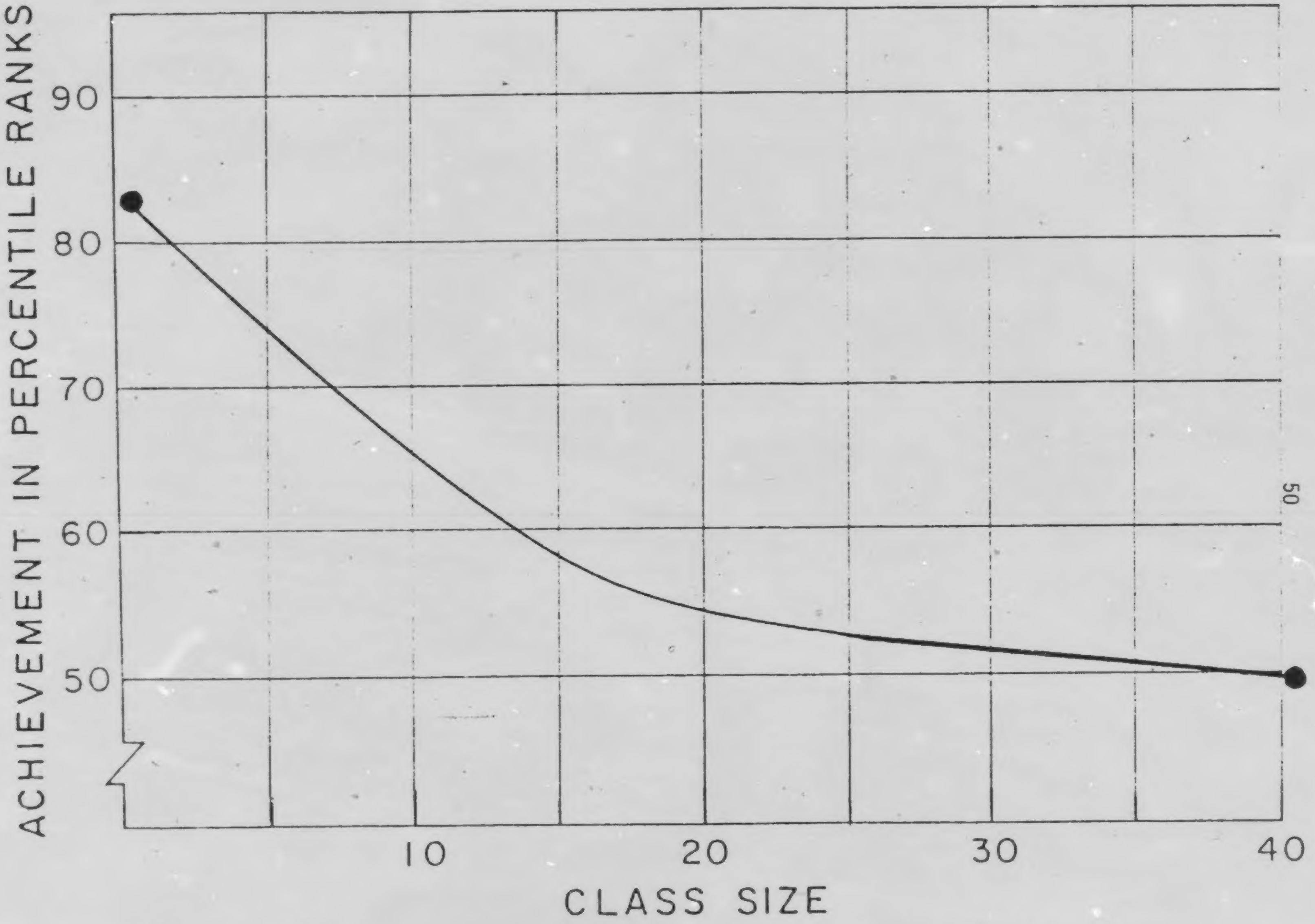

Figure 2. Relationship between achievement and class-size. (Data integrated across approximately 100 comparisons from studies exercising good experimental control.) From: Glass and Smith, 1978.

School size

With regard to school size, the findings are that smaller schools increased learning at the elementary and senior high school levels. Black elementary students seem to benefit particularly in smaller schools and low achievers in smaller senior high schools. At junior high level, school size appears to matter little, but it appears that being in an eighth grade that is part of an elementary school is far more beneficial than in one that is not.

Teacher experience

Teacher experience has been found in many studies to be relatively unimportant, with the more than three years but less than seven-to-ten years experience span being a slight exception. These studies have not related teacher experience to differing student abilities however. When this aspect is considered there has been an observable impact. Length of experience has a very different effect on high and low achievers. High achievers appear to do best with more experienced teachers. The opposite is true of low achievers however, who seem to do best with new, relatively inexperienced teachers. In junior high, an experienced English teacher appears to be particularly effective with high ability students, but experience of 10 or more years helps all students. In mathematics, things differ slightly. Particularly, effective instructors are those with three to nine years of experience, but those with ten or more actually reduce the rate of learning mathematics.

Rating of teachers colleges

Teachers Colleges were rated on the Gourman rating scale* (range is from 250 to 800) in a Pennsylvania study, and it was found that teachers from colleges with higher ratings prove to be more effective teachers. Elementary school students, who study with teachers from colleges and universities rated 525 or higher, achieve at higher rates. All students do better, especially those in the low-income category. This factor in junior high seems to matter little in the teaching of English or mathematics, but it helps in the teaching of social science--especially for high ability students.

School inputs which have little effect

It is of note that some of the school inputs, judged as important by research measuring other variables, diminish in significance when related to growth in student achievement. Also, there are objectives of education, which figure in the desired educational outcomes, that elude specific measurement such as civic spirit, an understanding of democratic principles, and balance in racial attitudes. However, in budgetary terms of efficiency and adequacy, there are some inputs which have negligible effect on the major systemic output variable of improved learning.

Head Start participation does not improve a child's achievement growth by the latter half of elementary school, but does aid the child's entering third grade at an improved level of achievement.

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*The Gourman Report, Phoenix, Arizona: The Continuing Education Institute, 1967. The areas measured in this scale include (1) individual departments, (2) administrations, (3) faculty (including student/staff ratio and research), (4) student services (including financial and honor programs), and (5) general areas such as facilities and alumni support. The Gourman rating is a simple average of all of these.

While general physical facilities of schools appear to have negligible effect on student achievement, the data simply may exclude reflection of this importance due to the type of measure used. Though old or new buildings seem to make little difference, they may be important for other significant organizational reasons such as morale, job satisfaction, etc.

The measurable characteristics of school principals do not appear to be related clearly to increasing student achievement. Variables such as experience, graduate degrees, and extra educational credits have little impact on student achievement. However, not to be confused with these findings is the importance of the personality, leadership, and the organizational skills of the principal, which are not reflected in the above cited criteria for measurement.

Whether teachers have more or less education beyond the B.A. or fare better or worse on the National Teacher Examination does not appear to influence productivity in terms of student gain. Matching the race of teacher to student appears to be unrelated to student learning, as does the provision of more remedial education and counseling. Once again, the degree of impact of these variables may be a matter of the nature of the research output variable selected.

School climate variables which affect learning

Racial balance has become almost synonymous with integration in schools, but balancing income and abilities should also be included in the broadest meaning of the word. Currently, black students, low-income students, and low achievers are identified as being one and the same group. While there is overlapping, they certainly are not identical and the effects of concentrations of each of these groups needs to be examined separately.

Theoretically, attending a school with different concentrations of race, income levels, and abilities might shape a student's learning. Also, disruptive incidence (assault, fire bombs, drugs, robbery, and use of weapons) might have an effect on learning. In the Philadelphia report, except for average family income of the school population, it was found that school climate factors greatly influence learning in public schools.

Racial balance

Elementary school black and non-black students appear to have the largest growth in achievement when they are in schools with a 40 to 60 percent black student body. The stimulative effect seems to be true for both black and non-black students. In brief, all elementary students benefited, in terms of achievement, in schools of approximately equal percentages of black and non-blacks.

For blacks and non-black students in junior high school, there is a very slight positive effect in attending schools ranging up to one-half black. After 50 percent, however, blacks experience significant learning growth as the proportion of blacks in the school increases.* Non-blacks experienced some learning declines when attending schools with a more than one-half black student body. A racial balance of about 50 percent would seem to benefit most both groups.

Achievement mixture

Research findings indicate that the nature of the mix of low and high achievers does seem to make a difference in student achievement growth.

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*This is true only when this variable is examined in isolation. Introduction of the achievement mixture variable mitigates this effect.

Elementary school students who test at grade level or lower perform much better when they are with more high achieving students. Those students above grade level are not particularly affected. Hence, it is low achievers who appear to benefit most when mixed with high achievers. High achievers are relatively unaffected by variations in the percentage of top and bottom achievers, but middle achievers experience negative effects when in a student body with more low achievers than high achievers. The intellectual composition of the student body then, from top to bottom, directly affects learning, especially for the low achievers. A heterogeneous grouping of abilities would appear to benefit the general student body.

In junior high, all students seem to benefit alike when they are part of a student body with high achievers. If junior highs are made more heterogeneous with respect to ability, the proportion of high achievers would vary, but low achievers would appear to be the biggest gainers.

In senior high, the only findings of note are that the greater the proportion of dropouts, the less learning there is in the student body. High achievers, in terms of achievement growth, seem to experience greatest negative effects in this situation.

In general, it would appear that peer group abilities do affect student achievement. In view of this, it would seem that concern for desegregation measures should apply not only to race, but also to student abilities as well.

Disruption incidence

In all levels of public school, a greater frequency of disruptive incidents lowers significantly the achievement growth of high achievers, but low achievers are much less affected. How this disruption is to be handled is not clear from the research, but when free of its occurrence, more skills learning will take place.

Cost effective variables

With respect to cost as an indicator of learning achievement gain, it has been found (Michigan Department of Education, 1976; Georgia Department of Education, 1974) that higher achieving schools, as opposed to lower achieving schools, devoted significantly more resources to compensatory education programs; incurred higher costs/higher reading achievement; incurred higher costs/student teacher. These are general findings consistent throughout the literature, so that it is apparent that successful compensatory education programs are not cheap. However, true economy is a matter of maximizing output from input, and here it would appear that the cost of the investment, while high, is worthwhile. Less expense at the cost of failure is ultimately a "luxury" no prudent administrator can condone.

Inservice training

Intensive inservice teacher training and supervision programs (Illinois State Department of Education, 1972) are positive correlates of successful student learning gains and several programs are available as models.

Degree of accountability

The more measures of accountability built into the compensatory education program, the greater is student growth in achievement outcomes. The degree of accountability should be high at all levels of administrator involvement. The regular teacher, the compensatory education teacher, the compensatory education supervisor, principal, and superintendent all are held accountable for the success of a program.

Comments

These findings indicate that certain key school inputs do make a difference in achievement growth. Targeting of school resources to the type of student who will benefit most is effective management. Students disadvantaged by socioeconomic characteristics can be brought to learning rates closer to those of advantaged students if administrators match particular resources to their needs. Teachers from higher-rated colleges, for example, can be assigned to compensatory education programs. Also, reducing disruptive incidents in the school, achieving greater racial balance, and mixing more higher achievers into the student body will aid learning rates.

Other research findings (Michigan State Department of Education, 1976; Georgia State Department of Education, 1974; Illinois State Department of Education, 1972) reveal different indicators of compensatory education success associated with organization and management practices. These are of interest since they enlarge the rather narrow perspective of studies limited to a singular orientation, such as in the Philadelphia study. The conscientious compensatory education administrator should be familiar with all types of research studies in his field, since the area of educational management is as complex as the very human elements of which it is composed.

Formal Communication Patterns in Compensatory Education Programs

Research findings in this area (Nelson, 1972; Michigan State Department of Education, 1976) show positive significant relationships between student reading achievement gains and the following communication pattern variables: the number of times principal and compensatory education director met during the year to discuss reading activities of compensatory education students; the percent of these meetings initiated by compensatory education director; the number of visits by compensatory education director to observe compensatory education students; reading during the year; the number of discussions compensatory education teachers had with the district compensatory education director in the past year about compensatory education students' activities; and the number of teacher and principal meetings about compensatory education reading activities initiated by the teacher.

These variables reflect frequency as a common denominator and some directionality, as in the case of the compensatory education director initiating meetings with the principal, and in the case of the teacher initiated meetings with the principal. Together they make the point that frequent and successful communication is vital to the output variable of student achievement outcomes. The principal in these findings would appear to invite consultation as opposed to initiating it. Implications for these findings refer to an organizational climate in which authority encourages a two-way feedback system and provides a non-threatening environment for program evaluation and modification by all persons involved.

The administrative use of paraprofessionals and teacher aides in compensatory education programs appears in the literature as being positively associated with student achievement gains. In fact, for the past five years the Virginia Education Association has cited the use of aides as the number one variable consistently related to successful student achievement growth outcomes.

Summary of Findings

In summary, the research findings indicate that certain school inputs do make a difference in achievement growth, and specific targeting of certain resources will benefit particular types of students. The administrator has various resources available for better utilization in view of the findings. Some of the particular resources are (1) arrangement of class size; (2) school size; (3) inservice training; (4) the use of paraprofessional and teacher aides; and (5) parental and community involvement; (6) new policies for selecting teachers based on college rating and/or experience proven by research to be particularly effective with low achieving students and redesigning the reward system to consider these factors; (7) using results of cost effectiveness studies, strategies for team planning, programming and evaluating; and (8) analyzing and improving administrative patterns of communication.

The implications for policy are that public school resources can be used to attain greater equity in education. If achievement growth is an acceptable goal of public education, equity attainment relates to what the student obtains from his or her education rather than what the school expands on him or her. State funds now compensating for income and population density characteristics would be better used compensating for low achievement, according to the previously cited findings.

A further implication of this report for policy is related to educational productivity. Some school inputs produce greater achievement growth than others, therefore, shifting resources towards those inputs could increase education output without increasing school district expenditures. For example, school resources could be shifted away from extra inputs which seem less significant (such as additional teacher education, plant facilities above the minimum, and unproductive class sizes) to more productive inputs (such as smaller class numbers, smaller school enrollments per building, and making the race and ability mix more heterogeneous).

Other implications relate to accountability--long a vital factor of managerial evaluation systems in business and industry. Using the measure of achievement growth as related to specific school resources, an economic definition could be determined which would enable taxpayers, parents, and courts to hold administrators accountable and permit the latter to adopt appropriate administrative strategies which would meet public expectation of efficient and effective management.

The role of administrative leadership in successful compensatory education programs emerges through the key figure of the principal. Successful outcomes in student learning gain are associated with principals who

--demonstrate strong leadership.

--have a definite point of view of what kind of school climate and instructional procedures lead to high achievement.

--communicate optimistic expectations for student achievement outcomes to teachers.

--maintain building order without repression.

--emphasize priority of compensatory education programs and particularly acquisition of Basic Skills.

--encourage staff to have high expectations for student outcomes.

--maintain good balance between managerial and instructional skills.

--are assertive.

--place emphasis on not only planning the reading program as a team project but also incorporate active means for its on-going evaluation and modification.

--document progress.

--make themselves accountable to all levels of administration.

--maintain links with home and community.

--encourage parental involvement at classroom level.

The allocation and organizational management of human and material resources is a paramount factor in the success of compensatory education. From an economist's point of view, accountability of public educators can be made more precise by defining education in terms of productivity. Key school inputs have been identified as associated with improved student achievement growth, which is defined as the educational "product" or outcome variable. The aim of this type of definition is to eliminate some of the ambiguity associated with identifying educational goal achievement. Huge sums of public money are dedicated to public schools and, in recent years, they have not been meeting the public's expectations.

This economic approach suggests that certain resources be shifted within the schools to those activities which favor improved growth of achievement. The administrator could maximize efficiency in this way and secure greater equity for the disadvantaged. One of the limitations of the economic approach is that it overlooks the importance of other desired educational outcomes of a less tangible, non-utilitarian nature. Legislators and public school administrators share the responsibility for total education of the individual as a member of a political ideology, a national work force, and a humanistic society. Measures for all these outcomes are the concern of administrators. Specific indicators make good research findings but, of necessity, restrict the total picture so that the findings of all types of research must be presented to legislators and administrators alike; their task is to select those data which best suit their particular role in public education.

Caveat

There is a growing tendency in public and political circles today to reduce education to a matter of economics. It is of particular note that the Philadelphia report (Summers and Wolfe, 1975) was conducted by a bank, from an economist's point of view. The very singular definition of education as growth in achievement is certainly a useful, measurable, observable one. However, the intangibles of education, which are mentioned in passing in the report (racial attitudes and a sense of participation in the democratic process), are perhaps its essence. Education is more than academic preparation. From the point of view of legislators this aspect is of course important, but more important still is the civic and socializing role of public education. A political philosophy determines the conceptualization of education and this nation was founded by men well aware of the power of an educational system. The American ideology and way of life is perpetuated in its public schools and accountability should take into consideration these aims, as well as those of maximization of efficiency.

The Philadelphia report authors (Summers and Wolfe, 1975) recognize that

> . . . the objective of many school inputs is not limited to the objective defined in this study--growth in achievement scores. Objectives such as racial attitudes and a sense of participation in the democratic process may also be a part of the desired outcome of the educational process. But, in terms of the achievement objective, and within the range of expenditures, the School District budgets, some school inputs do not appear to improve learning. (p. 17)

The obvious implication of this is that those things which do not contribute to improved learning gain should be relegated to secondary importance in planning and budgeting. Those aims then, which in no way affect achievement growth, would be increasingly diminished in emphasis, and education would become a continuation of the economic process concerned with productivity measures related to the quality of the nation's work force. This is a part of education, but only a part.

Legislators establish priorities for the educational system and allocate funds for their accomplishment. The very idea of compensatory education stems from the American socio-political concern of equal opportunity. The idea of school integration is a social concern and the public school system is viewed as the fulcrum for balancing social inequities. Accountability in education in general, and in compensatory education programs in particular, should look to the accomplishment of these aims, not only from the perspective of economics, but also in the widest social sense of insuring maintenance of its political philosophy.

The systemic approach to viewing education, adopted in this paper, is intended as a partial tool of bettering the efficiency of educational management, but in no way pretends to equate this with the only way to evaluate and to accomplish educational aims in the broadest socio-political sense. It is the duty of federal and state legislators at levels of governance and policy to preserve the wider vision of the public mission of education.

Conclusions

In conclusion, a review of the literature presently available reveals that certain administrative characteristics are positively associated with successful compensatory education programs. These are

--"strong leadership"--a principal who has a definite point of view about what kind of school climate and instructional procedures lead to high achievement, and who is able to communicate these expectations to classroom teachers.

(a) schools orderly without being repressive

(b) strong emphasis on acquiring, developing, and assessing reading skills

(c) staff who has high expectations for all their students.

--Systematic planning which begins with formal policy decisions to increase support for quality compensatory programs.

--Clear objectives which must be clearly written and stated in specific measurable terms.

--Intensity of treatment which includes the amount of time the child spends in the program and the staff/pupil ratio within classroom.

--Attention to individual needs.

--Flexibility in grouping.

--Personnel Management.

--Structured program approach which stresses sequential order and activities.

--Parental involvement which means the home must support what the child learns in school.

--Excellent reading program--Five major points could be identified providing insight into successful administrative practices:

1. Reading specifically was designated as an important instructional goal and was given priority in school activities.

2. Key person who provides guidance and direction in reading (majority of them, principals).

3. Basic skills given great emphasis.

4. Materials used encompassed a broad range of content.

5. Interchange of ideas among staff members were encouraged in a congenial atmosphere of team effort.

--Principals assume responsibility for the evaluation of achievement in basic skills.

--Administrators and boards of education make achievement in basic skills a priority.

--Basic skills take precedence over all other school activities.

- --Goals are just window dressing unless backed with resources.
- --Contrary to some studies, school inputs (such as class size and teacher experience) do help students grow in educational achievement and can compensate for the disadvantages of poverty, race, and low ability.
- --Paraprofessionals and teacher aides in compensatory education programs are positively associated with student achievement gains in the literature.

Recommendations for Implementation of Compensatory Education Programs

From the research, it becomes evident that the initiation of compensatory education programs in any state should begin with a systematic planning approach at the highest level. Once the philosophical aims of the compensatory education program have been stated, there should be strong public backing of the programs as a priority in the public educational system. Allocation of funds should be commensurate with the priority status granted.

It has been shown that communication among all levels of administration in compensatory education programs must be consciously structured and monitored for success. The key figures for initiating the compensatory education structure would be state education agency representatives, board of education members, superintendents, principals, and compensatory education teachers, who should work together to define goals and specific objectives, in measurable terms. Once these have been determined, the specific work plans to effect the goals falls largely to the key administrative figure in compensatory education programs, the principal. The latter should work actively with the compensatory education teacher and the regular classroom teacher, serving as guide to direction and evaluation of planning and progress. The superintendent should be conscious of his role as liaison between the school board and the principal. These links fortify the administrative structure's management efficiency and facilitate accountability procedures. All work should be documented at each level, and a system of this documentation process should be built in, at the initial planning stage. Regularly established feedback channels from the student up to the superintendent should be provided for.

The success of the total state compensatory education program will probably hinge on (1) the effectiveness of the strategies for consciousness raising of the general public, as well as educators, of the importance of the program, and (2) the coordination of the general and specific goals throughout the system. Inter-site visits should be provided for, and statewide meetings for those in administration of compensatory education programs should be effected annually.

Specifically then, it would appear advisable to begin the first stages of consciousness-raising by familiarizing all administrative figures in the compensatory education program with the research findings already available:

--Information and orientation workshops of one day (minimum) might be planned on a statewide basis to introduce these findings to educators and community members.

--Needs assessments in terms of specific skills required by compensatory education programs relating to leadership, allocation, and organization of resources could be conducted at these meetings, to project training workshops as a first phase in the implementation of compensatory education programs.

--Schedules of workshops (most solicited) during a specified preliminary planning stage could be programmed and published.

--Regional and District workshops as requested would be carried out.

--Actual planning, programming, budgeting, and evaluating procedures on site with principals, compensatory education teachers, regular teachers, and parents representative would follow.

- --Meetings on a district basis of superintendent with principals and compensatory education teachers, on a regular basis, would be established.

- --State-wide support for interdistrict meetings semi-annually on progress in compensatory education programs would be effected.

The conceptual framework upon which these organizational strategies are based is Polanyi's Awareness Model which describes three stages of initiating change or innovation in a system. The first is that of consciousness raising.

An important person or group of persons publicly give their support to the intended innovation, and a contact is made with all those to be involved, stressing its priority and importance. Needs assessment is included here.

Next, focal awareness is conceptualized as the introduction of the means for implementing the expressed needs related to the innovation. This would be the workshop or training and developing phase related to human resources and the securing of materials necessary, etc.

The third stage, subsidiary awareness, is one of implementing the desired innovation (here, compensatory education programs specifically), and providing for evaluation, feedback, and continuous monitoring of all necessary inputs for its perpetuation.

Specific strategies for implementation at program level are beyond the scope of this paper, but it is hoped that sufficient references have been provided to aid implementation at all levels and stages of management.

COMMENTARY

WHY JOSE DOESN'T WANT TO LEARN

by James M. O'Kane

(c) N.Y. Times Special Features. James M. O'Kane is professor of sociology at Drew University, Madison, N.J., and research director of Social Science Research Associates.

For the past generation a host of social scientists have recited a bleak litany of research findings describing the problems of educating lower-income children. In the 1950's they startled us, telling us why Johnny couldn't read. In the 1970's the focus had shifted to Jose and theories abounded as to why he was violent, truant, and undisciplined. Yet Jose and countless other lower-income children still fail. Why?

Prior to the mid-1960's, we were told that Jose failed because of his background: He was characterized as culturally deprived, socially maladjusted and reared in a multi-problem family. The problem was Jose and the solutions for his affliction were to be found in remedial education programs and psychological therapeutic services that would compensate for the prior academic failure. Needless to say, these remedies did not work.

By the mid-1960's a new breed of educational reformers tackled the problem. They offered a radically different diagnosis: The source of the failure lay in the very structure of the school system. Instead of placing the blame on Jose, they blamed the repressive, alienating and racist school system, for it had created the very circumstances wherein Jose could not possibly achieve. Since the system produced the problem, it would have to be completely restructured so that it would become relevant and responsible to lower-income pupils.

The problem was the school and the remedies were to be found in community control programs, decentralized efforts, cultural enrichment programs and the development of new learning and teaching modes. Once again these new solutions also failed to solve the problem.

If the sources of the problem were neither in Jose nor in the school system, then where should we look? Surprisingly, there is an obvious answer from another point of view. Let us turn to Jose and view the situation from his perspective.

Jose knows that his world is one where high rates of young adult unemployment are epidemic. He also knows that completing high school will not help him appreciably in finding a job, for jobs are in scarce supply for lower-income youths whether or not they possess diplomas. Realistically, what difference does it make if he reads well, or if he completes high school?

The sad truth is that it means little, for American society currently cannot absorb a growing number of lower-income youths into stable jobs. Simply put, educational attainment is irrelevant to Jose. Only a small minority of lower-income youths will make it via the education route, and he knows that he does not belong to that group of upwardly mobile strivers.

Furthermore, he doesn't want genuine upward mobility of the types now available, for this would entail abandonment of everything dear to him--his family, his friends, his neighborhood, his values. Burning these bridges behind him is too high a price for the hazy rewards of middle-class status.

Consequently, Jose fails, yet he does not consider himself a failure, for all those close to him have undergone a similar odyssey--his older brothers, his parents, his friends--and he does not view them as failures, nor do they expect him to do well in school. His older brother pumps gas at the local service station--surely not a middle-class idea of success. Yet his brother has a family, earns a modest wage and is well regarded by his relatives and friends. In lower-class terms he is successful and both he and Jose know it.

Why then shouldn't Jose identify with this older brother and seek to emulate his way of life? In reality he does and gets by in life without the benefits of formal education. What we regard as failure is viewed by Jose as the normal direction of one's life. In his own way he is pursuing his version of the American Dream just as we pursue ours.

Hence, either blaming Jose's family or blaming the school is somewhat myopic, for the root of the dilemma lies outside the realm of education. Admittedly this is but one reason why so many promising approaches to educating lower-income children produce poor results. Yet the tinkering with both the schools and their children continues, while the more fruitful analysis of the larger social situation remains largely untouched.

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CHAPTER II

HOME-SCHOOL RELATIONSHIPS

Introduction

A considerable body of literature has indicated that the home has at least as much influence on school achievement as does the school. Coleman et al. (1966) reported the results of a large study in which they assessed the effects of many variables on childrens' academic achievement. They collected data on approximately 600,000 students in grades 1, 3, 6, 9, and 12 in 4,000 schools. The results supported two major conclusions. The first conclusion was that variations among students in levels of academic achievement are strongly related to their family backgrounds (social class). Traditional measures of the quality of a schools' staff, curricula, and physical facilities--such as class size (see Chapter I; Glass and Smith, 1978; and Summers and Wolfe, 1975), educational programs, teachers' educational backgrounds and experience, per-pupil expenditures, number of library books, equipment, and buildings--accounted for a comparatively smaller amount of the differences in achievement among students.

Secondly, the results indicate that the strong relationship between the economic and educational characteristics of families and students' levels of academic achievement does not diminish as the children progress through school. Rather, it increases, at least during the elementary years. Coleman et al. (1966) summarized their findings with the following statement:

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> The sources of inequality of educational opportunity appear to be first in the home itself and the cultural influences immediately surrounding the home; then they lie in the schools' ineffectiveness to free achievement from the impact of the home, and in the schools' cultural homogeneity which perpetuates the social influences of the home and its environs. (pp. 73-74)

Two investigators in England also compared the influence of home and school on the development of competence among children, and the results strongly supported the conclusions stated in the Coleman Report. Douglas (1964) reported that measures of parents' interest in and involvement with their childrens' education accounted for four times as much of the variation in childrens' scores on intelligence and achievement tests, when compared to measures of the quality of the schools the children attended. Similarly, the results of Moore's (1968) longitudinal study among English children indicated that those childrens' scores on tests of reading ability at age seven years and on tests of mental ability at age eight years were significantly correlated with ratings of toys, books, experiences, and language stimulation provided for the children by home visitors when the children were 2½ years old.

The results of two more recent studies also support the general conclusion that home variables are at least as important as school variables in determining the level of academic achievement that children attain through their studies. Mosteller and Moynihan (1972) reanalyzed the data from several large studies and generally supported Coleman's earlier findings. Further, they urged consideration of methods "to alter the way in which parents deal with their children at home" (p. 43). In a second study, Coleman (1975) reported the results of his analysis of data from achievement tests in literature, reading, and science collected from children, ages 10 through 14 years, living in Chile, England, Finland, Italy, Sweden, and the United States. His analysis indicated that the finding, that home variables are at least as important as school variables, is an international one.

Taken together, the results of many studies have both confirmed and strengthened the belief that the home, as well as the school, influences achievement and that more attention should be given to the development of strategies for bringing the home and the school together into a partnership designed to help the child achieve in school and life. The purpose of the literature search reported in this chapter was to identify and describe the characteristics of programs which have developed strong parent involvement strategies and which have research evidence of significant impact upon the basic skills achievement of K-12 children from compensatory education backgrounds. More specifically the following questions were being addressed:

1. Do programs with strong parent involvement procedures exist which have evidence of significant impact upon basic skills achievement outcomes?
2. What is the relative effectiveness of the various types of parent involvement procedures employed by successful programs?

Before turning to a description of the programs identified, it should be mentioned that in 1973, the Florida Legislature authorized the formation of school advisory committees (which involved parents as decision-makers) at the local school district level (ch.73-338). In addition, they enacted an Early Childhood Education Act (ch.75-284) which required school districts to plan and implement early childhood and basic skills development programs which involve parents as teacher aides, parent volunteers, foster grandparents, and paraprofessionals. One provision of the Act advocated the "use of parents in the classroom and for home visitation and parent education in order to strengthen the role of the family and the home in the education process and to develop a cooperative relationship between the family, the home, and the school." Such legislation indicates that the concept of parent involvement in education is known to and supported by the Florida Legislature.

Description of Selected Projects or Programs

The literature search uncovered a number of programs with strong parent involvement components which had significant impact on the basic skills achievement of K-12 children. In some cases, the research was conducted by outside evaluators who employed experimental vs. control type designs. Others did their own evaluation with less rigorous designs and, in many cases reported results in a criterion-referenced fashion. Approximately 18% of the programs identified in the literature search contained parent involvement components. Only 3%, however, made the parent involvement component a major emphasis. Five programs were identified which best met two criteria: (1) they place a major emphasis on parent involvement procedures, and (2) they have strong research evidence of pupil impact. A summary of the five programs by grade level focus, location, and parent involvement components is presented in Table 1.

A description of each of the five programs follows.

Florida Parent Education Follow Through Program

Project Follow Through began as an outgrowth of Project Head Start research in 1967 and has developed into a research project funded by USOE

Table 1

Summary of Five Parent Involvement Programs

Program Description Section				Component Identification Section Parent Involved as:					
Name of Program	Grade	Location	Address	Audience	Learner	Decision Maker	Para-professional	Volunteer	Teacher of own child
Florida Follow Through Program	K-3	College of Education, UNC	Chapel Hill, North Carolina	X	X	X	X	X	X
Oregon Follow Through Program	K-3	University of Oregon	Eugene, Oregon			X	X		X
Bilingual Education Follow Through Program	K-3	S.W. Education Development Laboratory	Austin, Texas		X	X		X	X
Children's Hospital Project	2-5	Washington, D.C.	Washington, D.C.		X				X
Orange County, Florida	4-6	Orange Co., Florida	Orange Co., Florida						X

for the purpose of promoting alternative educational programs for low income children in grades K-3 in school systems located in all 50 sates. The Florida Parent Education Program (Gordon and Breivogel, 1976) is one of 22 such alternative educational model programs that have been in operation since 1968-69 and is currently operating in 11 school systems in ten states (Jacksonville, Florida; Tampa, Florida; Winnsboro, South Carolina; Houston, Texas; Jonesboro, Arkansas; Chattanooga, Tennessee; Lawrenceberg, Indiana; Richmond, Virginia; Lac du Flambeau, Wisconsin; Philadelphia, Pennsylvania; and Yakima, Washington). The Florida program has been designed, developed, and implemented by 15 to 20 faculty members in the Institute for the Development of Human Resources of the College of Education, University of Florida, under the leadership of the late Dr. Ira J. Gordon. These faculty have provided administrative, consulting, evaluation, and inservice and preservice training services to the school systems attempting to implement the model. Since summer, 1977, when Dr. Gordon became Dean of the College of Education at the University of North Carolina, the program's administration has been located at Chapel Hill, North Carolina.

The rationale for the Florida Program rests on an ever-growing body of research which indicates that a child's chances for success in school are influenced at least as much, if not more, by home variables than they are by school variables. The parental attitudes toward the school and the value of education, the nature of parental interactions with the child, and the nature of the home learning environment are seen as particularly influencing such dependent variables as pupil achievement and self concept. Thus, the focus of the Florida Program is on changing the kind of educational experiences that the child receives at home as well as at school.

Description of the program

Implementation of the Florida Program requires involvement of parents in primarily three ways: (1) through home visitation; (2) through participation in program decision-making; and (3) through classroom volunteering.

Home visitation. Two adults, usually mothers from low-income backgrounds, are trained to work in the classroom with the teacher as a team. These adults, called "parent educators," also visit the homes of the children in the classroom weekly in order to teach an enrichment-type learning activity called a "task" to the child's mother, who later teaches it to the child.

Before the parent educator makes a home visit, she plans for the visit with the teacher and assists her in preparing the task that is taken into the home. The next week the parent educator helps the mother evaluate the effects of last week's task on the child and brings in a new task. Information that the parent educator receives during the home visit is then fed into the next teacher-parent educator planning conference.

Generally speaking, each parent educator makes home visits one-half of each school day and is in the classroom one-half day functioning as an instructional assistant to the teacher. In a classroom of 28 children, it is typical for the two parent educators to divide up the home visitation load so that each parent educator visits the homes of 14 children weekly. All children in the classroom are visited regardless of whether they are upper or lower income.

Parent participation in program decision-making. Parents of children in the Follow Through Program participate in program decision-making through the Policy Advisory Committee (PAC). The PAC serves as the governing body for each local program and only parents can vote. PAC participates in making decisions about such matters as program personnel selection, budget, proposal content, evaluation and development of home learning activities (tasks), parent grievances, and project evaluation. Parent educators encourage parents to participate in PAC when they visit their homes and often pick up and drive them to meetings when transportation is not available.

Classroom volunteering. Parents are encouraged to participate in the classroom as parent volunteers by the parent educator during home visits, as well as by the PAC, the classroom teacher, and other program personnel. Whenever possible, parent volunteers are involved in the actual classroom instructional process. Teachers, parent educators, and parent volunteers all take their turn at the clerical, housekeeping, and other kinds of non-instructional types of activities that must go on in each classroom.

Through the three processes briefly described above, home visitation, parent participation in decision-making, and classroom volunteering, the Florida Program attempts to develop a flow of communication and a system of interactions between the home and the school. The assumed beneficiary of these interactions is the child. The key elements of the model are presented below in greater detail.

Role of the parent educator. First, the parent educator functions as a home visitor to the homes of the children in the classroom in which she is working. As part of the process, the parent educator working with the teacher develops home learning tasks which are used with small groups of children or individuals in the classroom as well as with mothers during home visits. During the home visits she shows the mother how to teach the home learning task to her child(ren). Part of this parental instruction is aimed at increasing the quality and quantity of parent-child interaction in an educational setting.

Both teacher and parent educators are taught procedures for the development of teaching tasks. The parent education activity consists of periodic (preferably once a week) home visits in which the major activity is the demonstration and teaching of the mother in tasks that have been devised in school to increase the child's intellectual competence and personal and social development. A set of criteria is used by the teaching team in both the development and assessment of their materials. Responsibility for task development rests in the local community. In each community, a library of home learning activities is developed which can be used by any Follow Through teacher, regardless of grade level, when the activity matches the child and home. A learning activity (task) may be used for many children, or may fit just a few. These tasks are developed to enhance not only the cognitive or academic development of the child, but also to strengthen the parent-child bond, to involve siblings, both older and younger, in the Follow Through child's learning. They are not "homework," but game-type supplements. They are not designed as "remedial work" nor are they to be seen as serving "problem" children. They are for all children in the Follow Through classroom. As a part of the demonstration in teaching, the parent educator helps the parent understand the purposes of each task, how to perform it, and how to estimate the ability of the child to complete the task. But tasks are not a oneway street. The parent educator not only encourages the parents to develop their own adaptations of the material, but she also actively solicits from the parents their ideas about activities which have worked for them, their suggestions for future tasks, and their views about schooling. These, in turn, are used by the Follow Through teachers and parent-originators. In this fashion the school is influenced by the home, and the parent is enhanced.

During her home visits, the parent educator provides mothers with information about educational, psychological, sociological, medical, dental, nutritional, and welfare services available to children and families in the community. She elicits suggestions for tasks from the parents. She informs the mother about the Policy Advisory Committee (PAC) activities, and encourages her participation in them and in classroom activities.

In the classroom the parent educator functions as an instructional aide. The instructional role of the parent educator carries with it technical functions which are designed to supplement the instructional program in the classroom and home. Beyond her classroom instructional activities, the parent educator serves as liaison between the classroom teacher and the homes in which she works. She may assist the teacher during the group parent meetings and during parent conferences.

In the classroom, the parent educator serves as a teacher auxiliary, implementing instructional activities through working with individuals or small groups on various learning tasks. A basic element in the Florida Program is the recognition of the paraprofessional as a member of the teaching team. Under supervision, parent educators perform a wide range of activities in the classroom and are not confined to housekeeping, clerical,or child care duties. Basic to the creation of sound home learning tasks is a knowledge of the child and his behavior in the classroom. By working with the children on school activities, the parent educator comes to know them. Thus she can, after planning with the teacher, inform parents about the progress of the child.

The parent educator spends about half her time in home visits; her load being half the families in the class. Her remaining time is spent at school, working in the classroom, planning with the teacher, reporting to the teacher about her visits, and participating in inservice education. In several communities, organized staff development programs in local institutions of higher education offer the paraprofessional additional opportunities for personal career development.

Home visit cycle. The typical home visit lasts a little over 30 minutes from the time that the parent educator enters the home to the time that she leaves (travel time not included). Each home visit can be broken down into a cycle of three steps: (1) the teacher and parent educator plan for the home visit; (2) the parent educator makes the home visit; (3) the mother later teaches the task to the child. The cycle begins again as the teacher and parent educator evaluate the last home visit and plan for the next one. An ideal description of each of the three steps follows.

When the teacher and parent educator plan for a home visit, they review the last home visit and discuss any problems that the parent educator may have encountered, and select and/or build the next task that is to be taken into the child's home. The teacher then teaches and demonstrates the task to the parent educator in the same manner that she desires the parent educator to teach it to the mother. This is followed by the parent educator teaching the task back to the teacher (who role-plays the mother). The teacher helps the parent educator examine both the Desirable Teaching Behaviors involved and her understanding of the content of the task.

The second step in the home visit cycle is for the parent educator to make the home visit and demonstrate the task to the mother. In doing so, the parent educator obtains information from the mother on how last week's task went when the mother taught it to the child and certain home-school and general information (e.g., information on PAC, comprehensive services, ideas for new tasks). The parent educator teaches and demonstrates this week's task to the mother in the same way that she desires the mother to teach it to the child. This is done by having the mother role-play the child as the parent educator teaches her the task. The mother then teaches the task back to the parent educator who role-plays the child.

The third step in the home visit cycle, and one that the teacher and parent educator seldom get to observe directly, is the mother teaching the task to the child. If the parent educator has done her job well, then the mother will teach it to the child in the manner that the parent educator taught it to her.

The home visit cycle begins all over again at the next teacher-parent educator planning conference when they evaluate the home visit and plan together for the next one. All the activities involved in the home visit cycle are repeated weekly since each child's home is visited each week. It should also be added that, immediately upon returning to school following a home visit, the parent educator is expected to have a brief conference with the teacher concerning the home visit, thus promoting an immediate and continuous flow of current information between the home and the school.

Role of the teacher. A key person in the program is the classroom teacher. She supervises the classroom work of the parent educator and assists her in planning and implementing the parent education activities. She, with the assistance of the parent educators, develops and selects the home learning tasks. She plans with the parent educator before home visits, and receives her report afterwards. In order to perform these duties, the teacher needs additional planning time, and many of the communities have built such time into their schedules. Further, the teacher receives technical help from a third adult (parent volunteers) in the classroom in carrying out the general goal of reaching each child. She finds that there is increased parent understanding and support for her efforts. She also learns ways to work with other adults which increase her professional competence.

Role of the task specialist. In some communities there is a task specialist. If so, the task specialist works with teachers, parent educators, and parents in the development and delivery of home learning tasks.

Role of the parent volunteer. Parents are encouraged not only to visit the school and the classroom, but also to take part in working with children in the room. Parents are not seen as observers or bystanders, but as people who can contribute to the instructional process. Thus, in a room the teacher may have several adults carrying out a variety of learning activities. She becomes, then, better able to assess and to meet individual needs because she is freed from the tyranny of large class instruction, and from the myth that children only learn when the teacher is teaching. She learns, through the creation of home learning materials, ways to reorganize her classroom for individual and small group learning.

Program variations. Since the end of the national evaluation in Follow Through in 1975, the Program sponsor and some of its communities have developed certain variations of the basic Florida Program presented above. Such variations are outgrowths of the philosophy that communities should gradually become independent of the Program sponsor and in doing so develop a local model that will have the greatest potential for the dissemination of parent involvement throughout the local school system and the state. During the period of the national evaluation it was necessary to adhere to the "research intervention" (i.e., the basic program) as closely as possible.

Most of the variation that has occurred has been varying the number of parent educators per classroom (e.g., one instead of two at the upper grade levels) and the frequency of home visits (e.g., bi-weekly rather than weekly). Some of this variation resulted from funding cuts and some was by design.

Finally, it should be noted that over the years different communities have emphasized certain elements of the Florida Program more than they have others. Some have developed strong PAC's, others have emphasized the home visit, while others have concentrated more on the role of parents and/or parent educators in the classroom, etc. All have implemented the Florida Program but emphasized certain elements more than others. While such community differences may or may not be called variations, they do exist and undoubtedly fill local needs and, therefore, are desirable variations.

Oregon (Direct Instruction) Follow Through Program

The Special Education Department of the University of Oregon has sponsored the Engelmann-Becker Follow Through Program since 1970 (Rath et al., 1976). The Program was previously sponsored by the instructional program which had been developed by Carl Bereiter and Siegfried Englemann for disadvantaged preschool children. These procedures were adapted to a primary school curriculum and integrated with the basic principles of behavioral psychology to form the current model. Co-directors of the model are the developers, Siegfried Englemann and Wesley Becker, at the University of Oregon.

The Program is implemented at 15 sites throughout the United States, where approximately 8,000 children are enrolled. Although pupil ethnic background is recorded at individual schools, such information is not essential to the model's approach and, therefore, is not collected. There is, however, heavy representation of various ethnic groups across the 15 sites, i.e., Black, Native American, Mexican American, Spanish, and White.

The Urban project sites of the Oregon Program are

Brooklyn, New York, P.S. 137
Dayton, Ohio
East Las Vegas, New Mexico
East St. Louis, Illinois
Flint, Michigan
Providence, Rhode Island
Washington, D.C., Nichols Avenue Schools

The rural project sites are

Cherokee, North Carolina
Flippin, Arkansas
Smithville, Tennessee
Todd County, South Dakota
Tupelo, Mississippi
Uvalde, Texas
Williamsburg, South Carolina

Program sponsor staff members are organized into three major units: project administration, research and monitoring, and field services. The administrative unit includes the Co-directors, the two Administrative Assistants, and the clerical staff. This group is responsible for project planning, operation,and development.

Research and monitoring are performed by a Research Director and his Assistant, a Research Assistant, a Research Associate, a Process Studies Assistant, a Computer Programmer and data clerk/keypunch staff, a video tape monitoring staff, Data Collection Observers, and clerical staff. This unit is responsible for collecting and analyzing data necessary to monitor the project adequately, to evaluate project performance, and to provide support for administrative decision making.

Three Site Coordinators head the field services unit, which discharges major sponsor responsibilities in implementing the model. Eighteen staff members act as Project Managers and/or Consultants. These sponsor staff members assume a key role in implementation at the project site level. They assist on site supervisors and work directly with teachers and teacher aides. Their schedules range from 15 to 100 percent of full-time depending on individual site needs.

Basic values and beliefs

The Oregon Program is an alternative concept to the traditional teaching methods and classroom philosophy. This Program is an approach not only for administrators and teachers in educational institutions, but also for parents as managers of children at home. The Program is based on the assumption that every child can achieve well in school if he or she receives adequate instruction; conversely, pupil failure is a direct result of instructional failure. Disadvantaged children lag behind in developing relevant skills, particularly language concepts used in the school. For classroom success in these skills, their learning rate must be accelerated to reach the achievement levels of non-disadvantaged children.

A series of assumptions is basic to the program:

1. Increased manpower in the classroom can enable children to work in small groups at adjustable rates thereby increasing each child's frequency in making learning responses.
2. A structured daily program with programmed lessons enables teachers to have a clear plan of action.
3. Programming strategies should teach the general case, usually called intelligent behavior, rather than focusing on specific facts.
4. Teaching methods involving systematic use of reinforcement principles can ensure success of each child.

5. An inservice training program provides continuous staff support and development.
6. Continuous program monitoring of child performance enables remediation before learning failures accumulate.
7. Periodic performance evaluation of children and teachers, establishing comparative rates or progress, provides necessary information for further program development.

Parent education involvement

The Oregon Program is firmly committed to a parent partnership in the operation of the program and encourages Follow Through parents to become active participants at several levels. Guides have been developed for use in the classroom and in the home.

Parents as home teachers. For parents not directly involved in the school program, a series of training materials has been prepared to enable them to support their children's classroom learning at home. The Parent and Child Home Practice Guide illustrates model materials at Level I and tells how they are used, discusses teaching methodology, and answers common questions about the program. Parents are Teachers is a programmed course in child management. Used individually or in a small group with a discussion leader, it offers alternatives to traditional child rearing practices that are in agreement with model classroom management procedures. Spanish and Portuguese translations are available.

Bilingual Education Follow Through Program

The Southwest Educational Development Laboratory (SEDL) in Austin, Texas, sponsors a Follow Through Program especially geared to children whose primary language is not standard school English (Rath et al., 1976). The sponsor staff includes a Director, Preston Kronkosky; a Program Coordinator, Hercilia Toscano; and a Site Services Coordinator, Criselda Garza. In addition, there are six full-time Site Services Specialists working out of the Laboratory's headquarters in Austin.

Project site personnel generally include a Project Director, a Staff Development Coordinator for every ten classrooms, a Site Evaluation Coordinator, a Parent Involvement Coordinator, and a teacher and a teacher aide for every class (bilingual if bilingual mode is used).

SEDL has urban sites in

Corpus Christi, Texas (since 1975-76)
Los Angeles, California
Philadelphia, Pennsylvania

Rural sites are

Cutler, California
Orosi, California
San Diego, Texas
St. Martin Parish, Louisiana
Tulare, California

The children in the project site schools include Mexican American, Puerto Rican, Black, Other Minority, and White children. In the school year 1975-76, the program involved 196 classrooms with 5,524 children. These include 557 predominately Mexican American children in San Diego, 672 in St. Martin Parish (roughly 50 percent Black and 50 percent White children); 1,105 in Cutler, Tulare, and Orosi (mainly Mexican American children); 1,610 Mexican American children in Philadelphia; and 600 Mexican American children in Corpus Christi. The children speak English, Spanish, or French. Some are bilingual, some are not. Virtually none use standard English as a first language.

Basic values and beliefs

Since its founding in 1966, the Southwest Educational Development Laboratory has been involved with designing products for low income or culturally different children. SEDL has focused on curriculum development, staff development, and parent involvement efforts which acknowledge the importance of the home in child's learning. The Follow Through Program had centered primarily on bilingual (Spanish-English) education. Where a bilingual approach is not relevant, SEDL has used a program of English-as-a-Second Language (ESL).

The sponsor has five hypotheses which form the rationale for its program:

1. A child with a non-English language background gains in self-esteem, has greater success in learning, and develops literacy in two languages if instruction is given in the native language.
2. Concrete experiences with precise descriptive language better enable nonstandard English-speaking children to learn standard English.
3. A child learns to read more readily with materials based on subjects already taught orally.
4. Expository materials which emphasize syntactic and phonetic approaches help children learn linguistic decoding and encoding faster.
5. Children who understand and appreciate themselves in relation to their culture more readily accept the cultural differences of others.

The Program stresses oral language skills in its curriculum areas. Where Spanish is the native language, instruction is initially in Spanish, and subsequently in English. Where English is the native language, the instruction may be initially in English and subsequently in Spanish. The sponsor wants children to succeed in their first school experience and not be handicapped by trying to learn a new language and new subject matter at the same time.

Rationale for development and use of materials

The SEDL Follow Through program incorporates laboratory developed materials for children in kindergarten through third grade. Together, these materials comprise a program that is developmental, cognitive, and social. It recognizes that children go through a sequence of developmental stages, that cognitive development is crucial in early childhood, and that non-English for limited English-speaking children is needed to help their strengths be emphasized in school. The combination of these materials produces a program which is designed to help each child

-feel he or she is a valuable human being

-develop sensory-perceptual skills

-develop oral language and reading skills in Spanish/English (bilingual) or English (ESL)

-develop thinking and reasoning skills

-develop social science concepts and skills in the child's dominant language

-understand and adapt language for use under varied circumstances

-understand the cultural concepts represented in the child's classroom and learn to coexist with other cultures in the child's environment.

Parent education/involvement

Parent involvement, the sponsor's name for a process of interaction among home, school, and community, aims to initiate positive attitudes, understandings, and interaction between home and school; to increase parents' knowledge of community resources and facilities; and to let parents know about their children's school learning experiences.

The Parent Involvement Component of SEDL's Follow Through Program provides the school with a plan for organizing a parent involvement program. It promotes the parents' understanding of the educational process by suggesting a variety of activities related to the SEDL Follow Through curriculum model and by offering suggestions for training parents to carry out these activities (either at home or in the classroom). In this way, parents acquire experience and information for participating more effectively in educational decisions concerning their children. The Parent Involvement Component maintains that parents should be treated with respect and dignity and as equal partners in the education of their children.

Kindergarten materials

The sponsor believes that parents from a low socioeconomic background are concerned about their children's education, but often do not know how to maximize their children's educational experiences. A booklet for teachers, School and After: Parents Help explains the Parent Involvement Component for early childhood and kindergarten. The booklet is relevant to both the Bilingual and English Kindergarten programs.

Home Activities for Parents is designed to make parents more effective teachers of their children. It contains many activities related to the Bilingual Kindergarten curriculum, which the parents can do with their children at home.

Materials for Grades 1-3

The Parent Involvement Coordinator's Handbook, and the activities book which accompanies it, discusses

1. A plan for organizing volunteer parents to supplement the SEDL Follow Through Curriculum. Five volunteer programs are designed to be implemented in the following sequence:
   a. The School Orientation Program
   b. The Workshop Program
   c. The Home Activities Program
   d. The Classroom Volunteers Program
   e. The Instructional Volunteers Program;
2. Ways to establish the component, based on information gathered through parent and teacher questionnaires;
3. The importance of active and continuous support by administrators, who determine the ultimate effectiveness of a parent involvement program in the school;
4. Alternatives for volunteers, who have varying interests, skills, and amounts of time to contribute, as to how they may participate;
5. Specific suggestions for using the component in bilingual situations; and
6. The introduction of procedures and activities for training and Parent Coordinator.

Parent education

The sponsor suggests a year-long plan for involving and educating parents. In the first four weeks of school, there should be home visits and a general orientation meeting for parents. In the second four weeks of school, the Policy Advisory Committee (PAC) should be organized, and parents should begin class observation and participation. In the third four weeks of school, parent education should include a demonstration session of home learning activities. Throughout the year, on a monthly basis, there should be home visits, PAC meetings, parent meetings, demonstration sessions, classroom observations, classroom participation, and field trips.

Children's Hospital Project

This program was operated within a community-based child health care agency in Washington, D.C., and was called the Parent Participation Reading Clinic (Wise, 1972). Its purpose was to develop a home-based instructional program for the teaching of reading to economically disadvantaged elementary school children.

A reading specialist helped black, low income parents or older siblings, termed "home-instructors," acquire the skills necessary to help their own children learn to read. The home instructor observed the child receive a battery of tests including the Wide Range Achievement Test, Dolch Word List, Gray Oral Reading Test, Potell Reading Inventory, and the Peabody Picture Vocabulary Test through a one way mirror. After the home instructor received the complete test results, the reading specialist helped him/her develop educational prescriptions during weekly contacts. During these meetings the home-instructor demonstrated a lesson with the child (e.g., review of the Phonetic sound of "a"). In addition to such individual guidance, group meetings were held for home instructors.

After eight months of operation, a study was conducted by Wise (1972) with 19 experimental and 19 match control subjects using a pre-post, experimental--control design. Instruments included the California Test of Basic Skills, the Dolch Word List, the WRAT, and the PPVT. Significant differences were found ($p<.01$) on all instruments except the PPVT. Results were supportive of the program.

Orange County, Florida Program

Perry (1978) conducted a program involving 74 low socioeconomic, disabled readers in grades 4-6 from the Orange County schools in Orlando, Florida. The children received four selected youth periodicals monthly (*Daisy*, *Highlights for Children*, *Ranger Rick's Wildlife Nature Magazine*, and *Wee Wisdom*). Teaching materials were prepared to accompany the magazines, and parents were directed to encourage their children to read the magazines. In addition, each family received a local newspaper and four other periodicals (*Newsweek*, *Ebony*, *McCall's*, and *Essence*) which they were encouraged to use. Each family was visited and telephoned once monthly to determine whether the reading materials were being read and discussed. Typical reading activities included the introduction of new vocabulary words, the reinforcement of phonetic generalizations, and the strengthening of literal and inferential comprehension.

After eight months the experimental group was compared with a control group,which had received some periodicals, but had not been visited and were not encouraged to read at home. Generally speaking, significant differences in favor of the experimental group were found on the *Stanford Diagnostic Reading Test* using a pre-post, experimental-control design. The conclusion was reached that the home reading program had a positive effect on the low socioeconomic, disabled readers involved, and a recommendation was made that a program involving daily family reading periods combined with weekly home visits be studied.

Other Parent Involvement Programs

The five programs described above are not the only ones that have emphasized parent involvement and have research evidence of impact. They were described in some detail because they appear to have met both criteria. In the following section, the other programs will be briefly described.

Other Follow Through models

As a group, the Follow Through programs have relatively strong research designs. Project Follow Through represents the largest research and development program ever funded by the federal government. This USOE planned variation longitudinal research and development project was designed to impact upon the cognitive and affective gains of K-3 disadvantaged children and employed an experimental vs. control design as well as an outside evaluator (Stanford Research Institute). Twenty-two planned variation models were assessed in terms of pupil changes on the Wide Range Achievement Test, the Peabody Picture Vocabulary Test, Raven's Colored Progressive Matrices, and the Coopersmith Self-Esteem Inventory. Recent data (Guthrie, 1977) indicated that three of the 22 Follow Through programs had the greatest amount of overall pupil impact. These were the three programs already described (Oregon, Bilingual Education, and Parent Education programs). However, in the case of low income children, two other Follow Through programs had a significant impact: the Behavior Analysis program sponsored by the University of Kansas and the Responsive Education program sponsored by the Far West Laboratory for Educational Research and Development (Guthrie, 1977).

The Kansas program has been implemented in 12 school systems and features the use of token economy behavior modification procedures in the classroom (Rath et al., 1976). Parents are trained in behavior modification procedures and function in the classroom as volunteers and/or paid paraprofessionals. Each classroom usually contained four teaching adults: a teacher, a teacher aide, and two teaching parent volunteers. It is intended that the teaching procedures learned by the parents will "carry-over" into the home.

In the Responsive Education Program there are three major goals (Rath et al., 1976). It attempts to assist the learner to (1) develop respect and understanding for ethnic/cultural differences; (2) develop problem solving abilities; and (3) develop healthy self-concepts. Parents are involved as volunteers, as teachers of their own children at home, and as decision-makers through the Policy Advisory Committee. A Parent/Child Toy Lending Library Program is developed to facilitate the home learning process.

Title I programs

A second set of federally funded programs that require parent involvement are the ESEA Title I programs. Of the 41 Title I programs listed in "Title I ESEA: Educational Programs that Work" (U.S. Office of Education, 1978), about 17% had strong parent involvement components with some data indicating impact. The following Title I projects have strong parent involvement and data-based evidence of impact. However, the data base does not appear to be as strong as that of the Follow Through programs since it lacks a longitudinal, "outside" evaluation of clearly defined "interventions."

(1) The Improvement of Basic Reading Skills Project in Sylacauga, Alabama, involved parents as classroom volunteers and learners through workshops. This remedial reading project, focusing on grades 1-7, reported gains on the Gates Mac Ginitie Reading Test, attendance, attitudes, health habits, and grades received.

(2) Pupils Advancing in Learning (PAL) in Denver is a 1-12 program that concentrates on 1-3 and targets on students in the bottom quartile in reading. Gains in reading skills (CBTS) and in attitude and self-concept are reported.

(3) Reading Project in Hilho, Hawaii, involved parents in a behavior modification framework. Reading gains were double grade level expectations for grades 3-6.

(4) Title One Corrective Reading Project (TOCR) in Wichita involved parents as tutors and through parent workshops in grades 2-6. CAT achievement gains exceeded grade level for 1976-77.

(5) Comprehensive Help for Individual Learning Differences (CHILD) in Geneseo, New York, has an educational component in homes, a weekend recreational component for the entire family, and employs parents and older siblings as aides. Gains on the WRAT are reported.

(6) Reading Instruction and Pupil Personnel Services Project (Ripps) in Portsmouth, Rhode Island, serves K-10 with a K-4 concentration. Parent involvement is through regular parent conferences, ten-week parent study groups, and parent counseling. Objectives are consistently met as measured by the CTBS, the CAT, the Silvaroli Informal Reading Inventory, and a self-concept measure.

(7) SEAPORT program in Newport, Rhode Island, for grades pre-K through 9, focuses on remedial reading and involves parents through home visits. Gains, especially product outcomes, are noted.

In general, the Title One programs, which have strong parent involvement components, report that they are having a significant impact upon the reading, achievement, and other gains of low income children. With some exceptions, it should be noted that such programs concentrate upon the elementary school years.

Other programs. A variety of other data-based programs around the nation emphasizing parent involvement follow:

(1) An ESAA program in Atlanta, focusing on grades 1-7, uses a variety of parent and community involvement procedures. Gains in basic skills are reported (Henning, 1977).

(2) The School - Community Coordinating Team in Philadelphia employs a Community Coordinator in each school to work with parents. Achievement gains, reduction in retardation, and attitude and behavior improvement are reported.

(3) Corno (1978) reports that a parent-assisted Learning Skills Program (LSP) had a significant impact on 416 third graders in terms of LSP concept gains but reading achievement was not indicated.

The "other programs" reported above all have strong parent involvement components and are primarily focused at the elementary level. Their data bases do not appear to be any stronger than that of the Title One programs and certainly not as strong as the Follow Through programs. The data that have been gathered, however, do indicate that these parent involvement programs, like the Title One and Follow Through programs, are having a significant impact on the reading, achievement, and other gains of children.

Possible Florida programs. A number of projects in the state of Florida are presented in Florida Alternative Early Childhood and Elementary Education Programs and Practices prepared by the Department of Education (1977). However, impact data are not reported. Fourteen of 51 (27%) projects presented had some form of parent involvement. A listing of those projects follow:

a. Alachua County has a parent volunteer project which involves 100 parents.

b. Alachua County has a reading comprehension project involving 17 parents.

c. Basic Skills in Reading Project in Brevard County involves 20 home program aides and 28 volunteers.

d. Brevard County Reading Project involves two parents per school on its advisory council.

e. Crawfordsville Reading Project involves seven parents on its advisory council.

f. Dade County Reading and Math Project has established parent advisory committees in each school.

g. Coral Gables Carver Elementary P.T.A. Voluntary Enrichment Program involves 50 to 100 parents in grades K-2.

h. Dade City Diagnostic Prescriptive Reading Program involves 14 parents on its school advisory committee.

i. Orlando Emotional-Social Development Program utilizes 18-20 parent volunteers.

j. Orlando Career Education Program involves approximately 100 parents.

k. Okaloosa County K-6 Reading and Math Program utilizes 75 parent volunteers.

l. Key West Grade One Program involves 23-46 parent volunteers.

m. Sarasota K-6 Enhancing Learning Skills Program involves 30 parents.

n. Jacksonville program for the hearing impaired child utilizes 20 parent volunteers.

Research Projects

Two research projects have been identified which attempt to examine the extent to which parent involvement variables impact upon basic skills achievement when compared to other variables. A study by Devito (1976) of the Rhode Island Title One compensatory education students using the Gates-Mac Ginitie Reading Tests as measures of vocabulary and comprehension sought to determine the unique and common contributions of four sets of predictor variables: (1) background, (2) mental ability, (3) program, and (4) parental involvement. The vocabulary analysis indicated that the four variables, in order, accounted for 7, 13, 9 and 9 percent. Comprehension data were 7, 25, 5, and 4 percent.

A second study is that of Wellisch et al. (1976) which was part of a national evaluation of ESAA schools conducted in 1974-75. The study concludes that parent involvement relates to reading and math gains. The authors state that the

> successful schools were more likely to have parents in the classroom as aides, visitors, and as volunteers. It is not clear which particular promotional activities are most effective in raising or maintaining a high level of parent involvement in school, but it was found that administrative responsibility for school-community interaction was related to parent involvement. (p. 9)

Characteristics of Effective Parent Involvement

The strength of the researcher and/or evaluation base of the programs reviewed varies from strong to weak. However, results obtained from the studies with the strongest designs lead to identification of the following major program characteristics and conclusions.

Strong Involvement

A strong parent involvement component can and does have a significant impact on pupil basic skills achievement outcomes. It would not be safe to conclude that a parent involvement component alone would be enough, however, parental involvement is likely to be strengthened when combined with other components (e.g., curriculum). Most, but not all, of the research-based parent involvement programs have focused at the K-3 level.

The programs with the strongest research designs relating to pupil achievement are probably the federally funded Follow Through programs. Most effective among the Follow Through programs appear to be those located at the University of Oregon (Engelmann-Becker Model), the University of North Carolina (Florida Parent Education Model), and the Southwest Educational Development Laboratory (Bilingual Education Model). Additionally the University of Kansas (Behavior Analysis) and the Far West Laboratory (Responsive Education) programs had a significant impact on children from low income backgrounds. All of these Follow Through programs have strong parent involvement programs and four of them (Oregon, Kansas, SEDL, and Far West Laboratory) have strong curriculum components in addition. The fifth program (North Carolina/Florida) may also have a strong curriculum, but the classroom curriculum is not prescribed as in other programs.

ESEA Title I programs in Sylacauga, Alabama; Denver, Colorado; Hilho, Hawaii; Wichita, Kansas; Genesco, New York; Portsmouth, Rhode Island; and Newport, Rhode Island have strong parent involvement components and report a significant impact upon reading, achievement, and other gains of low income children. A variety of other programs in Washington, D.C.; Orange County, Florida; Atlanta, Georgia; and Philadelphia, Pennsylvania have obtained similar results. The research base of these programs is not as strong as that of the Follow Through programs and generally does not go beyond the sixth grade.

School Outreach

While the goal of most parent involvement programs appears to be to get the home and school working together in a genuine partnership on behalf of the child, in the case of compensatory education populations the successful parent involvement programs appear to be those where the school does the initial reaching out to the home, and "goes the extra mile" to maintain and to develop the relationship. This often involves school personnel helping and encouraging parents to develop the understandings and skills they need to fully participate in the partnership, and then "stepping back" and letting the parents assume a growing share of independence and responsibility.

The ways in which programs have involved parents seem to fall into six categories described by Gordon et al. (1978, p. 2): (1) by-stander/observers (e.g., audience); (2) learners (e.g., workshop participants); (3) decision-makers (e.g., school advisory committee participants); (4) paid paraprofessionals (e.g., teacher aides); (5) classroom or school volunteer; and (6) teachers of own child (e.g., as instructor of own child at home using material delivered through home visitation).

Teachers of Own Child

The single most often used procedure for involving parents in effective programs appears to be that of involving them as teachers of their own child. This is most often accomplished through home visitation, in which case a professional or paraprofessional demonstrates teaching materials and procedures to the parents on a weekly or bi-weekly basis. Effective home visits have been made by both professionals and paraprofessionals. For example, in the case of the North Carolina/Florida Parent Education Follow Through Model, paraprofessional home visitors were selected and trained from the low income parent population served by the program. The teaching activities and materials taken into the homes were jointly developed and/or selected by the child's classroom teacher and the home visitor (who worked in the classroom as well as making home visits).

Active Decision-Making and Participation

Other effective procedures include involving the parents (a) as decision-makers (e.g., advisory council activities), (b) as learners (e.g., school sponsored courses in human growth and development and/or parenting), and (c) as volunteers and as paid paraprofessionals. The effective parent involvement programs use a combination of the six kinds of parent involvement. An examination of five effective programs with strong research support, (1) North Carolina/Florida Follow Through Model, (2) Oregon Follow Through Model, (3) Bilingual Follow Through Model, (4) Children's Hospital Project, and (5) Orange County, Florida reading project, indicates that all five involved the parent as teacher of own child. In addition, three of five involved the parent as decision-maker, and three involved the parent as learner. Two of five involved the parent as paraprofessional, and two involved the parent as volunteer. One project relied exclusively on involving parent as teacher of own child at home. The North Carolina/Florida Follow Through Model used all six types of parent involvement.

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CHAPTER III

INSTRUCTIONAL ORGANIZATION AND PROCEDURES

Introduction

This chapter focuses upon those aspects of instructional strategies and instructional planning that have been demonstrated as being effective in producing gains in achievement in a compensatory class or program. It should be noted that the literature reviewed for this chapter is restricted primarily to studies of compensatory education programs and is not generalizable to other school populations.

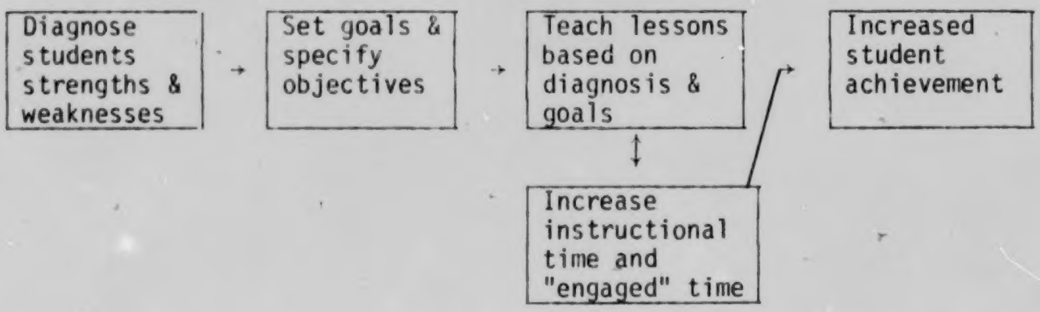
The information in this chapter is organized under three major headings. First, a paradigm for effective instruction is presented and described briefly as an overview of the remainder of the chapter. Second, a selected number of major studies and reviews are presented and discussed under a number of subheadings. Finally, the last part of the chapter synthesizes the findings reported. In addition, some implications for effective instructional practices are presented.

The research literature dealing with instructional organization of compensatory education programs has concentrated on the subjects of arithmetic and reading and in the elementary grades. Such an emphasis on these two subjects reflects the importance of reading and arithmetic as basic skills. Deficits in either of these two subject areas increase the difficulty of a student progressing normally in school. The focus on the elementary grades comes from the demonstrated belief that remediation should occur as early as possible in the schools and that this early remediation is more likely to result in effective learning than attempts at remediation at a later time.

The paradigm for effective instruction, presented in Figure 3, is based on the premise that effective instruction in a compensatory education program cannot occur until the teacher knows the educational reasons why a student is enrolled in that program. It may be that a student possesses balanced skills but is performing at a level of literacy or arithmetic below grade level because the student is a slow learner.

Figure 3

Paradigm for Effective Instruction


Diagnose students strengths & weaknesses
Set goals & specify objectives
Teach lessons based on diagnosis & goals
Increased student achievement
Increase instructional time and "engaged" time

Another student may exhibit unbalanced skills because of inadequate learning of some aspects of that skill. In the first case, an effective educational program focuses on a broad range of subject areas, while in the second case, a more specific type of instructional program is developed to focus on the specific deficits. In either case, before a teacher can plan for these students, an appropriate diagnosis of both strengths and weaknesses is necessary. To perform an effective diagnosis, a teacher must be able to administer and interpret various formal and informal assessment instruments.

Based on the results of the diagnosis of the student's strengths and weaknesses, the teacher is then able to develop appropriate goals and specify those objectives necessary for reaching these goals. The student's program is planned carefully so that class time is used to maximum efficiency. Instruction is related directly to the goals and objectives developed for the student, focuses specifically on the student's deficits, and is academically oriented.

Since students enrolled in compensatory education programs have not reached a desirable level of literacy or arithmetic skills within the time normally allowed for instruction in the classroom, increasing the amount of instructional time available is necessary. Instructional time means "actually spending time on the act of learning" (Carroll, 1963, p. 725) and not just an increase in the time allotted to instruction. The student must be oriented to the instructional task and be actively engaged in learning.

If the four characteristics of effective instruction contained in the paradigm are done appropriately, the student should improve his or her achievement as reflected by a standardized achievement test score.

Selected Research Projects

A review of the literature on compensatory education programs, particularly in the areas of reading and arithmetic at the elementary grade levels, revealed a number of variables or characteristics believed to be important in developing effective programs. Those areas included most often in these studies are the following: (a) Classroom variables such as class size, grouping for different subject areas, and the amount of support help such as paraprofessionals or instructional specialists; (b) Teacher activities which include the level of questions asked by the teacher, the amount of "direct" teaching that occurs in the classroom, the amount and use of supplementary materials, the clarity and precision of course goals, the amount of feedback given to the student, and the amount and type of teacher preparation for compensatory education; and (c) Student activity in the classroom which focuses primarily on the amount of "on-task" time spent by the pupil for each subject area. In many studies, several of these characteristics were examined at the same time, while in other studies, a single characteristic was examined. In the following section of this chapter, these characteristics will be discussed separately and the final section of the chapter will attempt to integrate the findings related to these characteristics.

Class Size and Grouping

It has long been argued that a smaller teacher-pupil ratio, that is smaller class size, is related to increased achievement by students. In an extensive study of the relationship between large and small group instruction and reading achievement, Kiesling (1971) interviewed teachers of 2400 students from four school districts about instruction time on the whole and about the type of grouping used in reading instruction. The time given to each student was broken down into whole group instruction, small group instruction, individualized instruction, individualized instruction by a trained reading specialist, and individualized instruction by paraprofessionals (paid or not paid). Using the California Achievement Test and a criterion-referenced test on elementary school children in March-June 1975, Kiesling performed a multiple regression analysis of the results of the scores on reading achievement. He reported that, most importantly, classroom teacher small and large group instruction is related to performance in reading between 30 and 50 percent of the time depending on the statistical level of significance used. The highest percentages are found for students who were about one grade level behind in achievement in reading. Also, this study showed the value of instructional time which is given to each student (i.e., counting the amount of time and evaluating the qualifications of the person who gives it). The value of instructional time is lowest for the most advanced students and rises dramatically with less advanced students. While this study is complicated by the measurement of the amount of instructional time given to a student, smaller teacher-pupil ratios allow for more instructional time per pupil. Smaller class size does result in increased gains in reading achievement.

Summers and Wolfe (1975) demonstrated that class size was important for reading achievement. They reported that for students who performed below grade level, reading achievement was higher in classes under the size of 28. For students who were performing in the average range, there were no differential effects on reading achievement in classes up to 33 students. Low ability students, at all age levels, achieved better in smaller classes.

In a study of whole group instruction, as compared with individualized instruction in reading, Stallings (1978) reported that students improve more in reading when the teacher focuses attention more frequently upon a large group or total class, as opposed to the teacher working with one student at a time. Stallings offered an interesting commentary on the relative value of working with an individual student when he stated, "This does not mean that working with individuals is poor practice. It does suggest that when the teacher spends a large amount of class time with one student, the other students may not receive the instruction or feedback they need. Thus, it is important to organize the classroom to provide instruction to the maximum number of students possible for the longest period of time" (1978, p. 8).

It seems clear from the studies by Stallings and Kiesling that a critical variable in the effectiveness of class size, as related to achievement, is the amount of time a teacher spends with each student in instruction. Individualized instruction, while effective for that single student, does not allow for large amounts of instructional time for the remainder of the class. Class size and grouping for instruction therefore must strike a balance between individual attention and moderate attention to the entire class. Some studies have reported that small groups of from 3 to 6 students appear to be most effective. The source of their conclusions was not indicated.

Additional Personnel

While the role of paraprofessionals and parents in the compensatory education classroom is reviewed in greater detail in another chapter in this report, there has been some research done on the effects of additional personnel on student achievement in the classroom. Fisher et al. (1978) in the Beginning Teacher Evaluation Study (BTES) reported that the presence of aides, parents, volunteers, cross age, and peer tutors is associated positively with the interactive amounts of instruction provided the students. Given appropriate training, additional personnel not only reduce the instructor-pupil ratio, but also they increase the amount of contact time provided each student. As indicated in an earlier section of this review, increased instruction time is associated positively with achievement.

Hawkridge et al. (1968) set out to identify characteristics of compensatory education programs associated with success or failure. In reviewing a number of elementary level programs, they reported that the use of trained reading specialists, as well as tutors, had positive effects on reading achievement. Individual attention provided by support personnel for attacking the student's learning problems contributed to successful programs.

Reading specialists have been utilized in a number of successful compensatory programs. Gordon and Wilkerson (1966) suggested two major ways of using special reading personnel. First, they can be used to demonstrate or to conduct classes for teachers. Second, the specialists function as resource people, providing sources of information on new materials and new teaching techniques. Also, special reading personnel can teach compensatory reading programs and can lead workshops for classroom teachers.

In an interesting approach to the evaluation of the impact of additional personnel in the classroom, Kiesling (1971) attempted to relate instruction of both reading specialists and paraprofessionals to pupil achievement gain. Using individual equivalent minutes (IEM) (the number of minutes of class per week divided by the number of students), Kiesling examined three types of personnel: trained reading specialists, regular classroom teachers, and paraprofessionals. For paraprofessionals, he reported that 10 IEM's related to one month's growth in reading performance. For the trained reading specialists, the same 10 IEM's resulted in 1.5

months' gain in reading for those students who were served by the reading specialists for the first ten months of attendance. However, the gain declined to less than one-third month's gain per 10 IEM's after that time. For those classes with reading specialists, the teacher-pupil ratio was no larger than one teacher for 10 students.

Level of Questioning and Direct Teaching

Two characteristics of effective compensatory education classes relate directly to teacher performance. The first is the level of questions asked by the teacher to the student. Using Bloom's taxonomy, questions can be classified at a low cognitive level, such as knowledge and information questions, or at a high cognitive level, such as evaluation or synthesis.

In an extensive review of the available literature, Medley (1977) summarized research done in classes of grade 3 or below in which most of the pupils came from homes of low socioeconomic status. Among the variables examined in this review, Medley reported that effective teachers of low socioeconomic students asked more questions classifiable at the lower levels of Bloom's taxonomy than did ineffective teachers. Effective teachers were less likely to be seen amplifying, discussing, or using student answers. They either acknowledged the student's answer or went on to something else. Pupil-initiated questions and comments tended to be less in classes taught by effective teachers. In other words, the effective teacher kept interaction at a low level of complexity and pupil initiative. The teacher was not likely to encourage pupils to analyze, synthesize, or evaluate, but would have students answer narrow questions asked by the teacher.

According to Medley, effective teachers in high socioeconomic classes were most likely to use one of the two following question patterns: 1) to identify the pupil who was to answer the question before asking it, or 2) to ask a question and then call on a pupil who indicated a desire to answer the question. In these classes the teacher was more likely to discuss the pupil's answer, unless the answer was incorrect. When the answer was incorrect, the effective teacher was likely to criticize the pupil's answer or to answer the question personally. By contrast, the effective teacher in low socioeconomic classes tended to ask the question first and then choose a respondent who probably had not indicated a desire to answer the question. These teachers were less likely to discuss the pupil's answer and, if the answer were incorrect, the teacher was less likely to criticize the answer or to answer the question personally.

The questioning strategy that was most likely to be successful for compensatory reading programs in the primary grades was to ask simple questions since they are more likely to elicit response that are correct and seldom merit further discussion. To hold the student's attention, the teacher was more likely to ask the question first and then indicate who was to answer it. Criticism of the student's response was rare, even when incorrect. If the student did not answer the question, the teacher was more likely to lead the student to answer the question. Pupil-initiated questions tended to occur less frequently in low socioeconomic classes taught by effective teachers.

In addition to the above, Stallings (1978) reported a positive correlation (r=.41) between reading achievement and the teacher questions. Teachers who guided students who said they did not know the answer to a question by asking additional questions had students with higher reading achievement scores. Medley (1977) reported that the effective teacher asked easy questions, and these questions tended to be at a lower cognitive level. For these teachers, the teacher presented most of the content, asked low level questions, and pupil questions were low in frequency.

A second characteristic of effective compensatory education classes was the variable of "direct" teaching. This term includes the following. First, the amount of time a teacher is directly involved with actively teaching the students. Second, the amount of time the teacher is actively monitoring the learning of students as compared with the amount of time the students work independently at their seats. Third, the amount of time the student attends school also is important, in that being in school allows the teacher to have a direct effect on their learning.

A study by Spartz et al. (1977) examined the reasons why first grade pupils entering school were above national norms and by the fourth grade were below national norms in reading and mathematics. By the eighth grade, these students were substantially below national norms. A task force was implemented to analyze the functions of six schools where pupil achievement was below expectancy in reading and mathematics. In addition to an examination of the management and organizational patterns of the schools, the task force analyzed the methods and techniques of instruction, as well as the conditions for learning.

The findings indicate many differences between schools achieving above expectancy (SAE) and those achieving below expectancy (SBE). In the above expectancy schools, supplementary materials were task-oriented and lesson-related, while in the below expectancy schools these materials were used for occupying time. Basal readers were often the only source, in the reading programs, for the below expectancy schools, while in the above expectancy schools, basal readers were only one component of the instructional program. On the average, in the above expectancy schools, teachers reported spending 80 percent of their time in instruction and 20 percent in classroom management. These teachers demonstrated more understanding of the structure and substance of the content being taught than did teachers in the below expectancy classes. Across grade levels 2, 3, and 4, the number of specific objectives increased with grade level in the above expectancy classes, but not in the below expectancy classes. Teachers in the above expectancy classes also were better able to judge more accurately the time needed to teach a lesson.

Time in formal instruction was found to be a significant variable affecting achievement. Guthrie et al. (1976) reported that Wiley and Harnischfeger (1974) found that the actual amount of schooling sixth graders received in an academic year may be as much as 24 percent greater for some students than for others. This difference in quantity of schooling produced associated gains in reading comprehension that was two-thirds greater for those students who attended school for a longer period of the day.

In a later part of his report, Guthrie et al. (1976) reanalyzed data collected by the Educational Testing Service during the 1972-1973 school year. The purpose of the study was to examine classroom instructional reading groups engaged in both regular and/or compensatory reading education and to attempt to determine whether practices used to teach children to read actually produced children who could read. It examined two instructional variables, as well as socioeconomic and sex variables, as they related to different amounts of instructional time and practice. Program information was collected by the use of questionnaires which measured school characteristics, teacher characteristics, teacher beliefs about compensatory education, and characteristics of both regular and compensatory education classrooms. The reading achievement test data was taken from pre- and post-test scores of the Metropolitan Achievement Test-word knowledge score, administered by teachers under the supervision of Educational Testing Service. Analyses were done for both the regular and compensatory classes in the second and the sixth grades.

Of particular interest to this section of the chapter was the following. In compensatory programs for second grade children, children who received maximum time in reading program instruction made larger gains on the test than those who received minimal time. In grade 6, instructional time was found to have a significant effect on reading comprehension using the Sequential Test of Educational Progress (STEP). In comparing the interaction between instructional time and instructional emphasis for second grade children, for programs with high skills emphasis, amount of instructional time did not influence gains in comprehension. On the other hand, for classes with low skill emphasis, amount of instructional time had a significant impact. The condition of low skills emphasis combined with maximum instructional time produced greater gains in comprehension than did any other combination of these variables for second grade compensatory classes.

The combination of instructional time and instructional emphasis for the sixth grade children indicated that there was more instructional time for sixth grade children than for second grade children. In regular programs, instructional time had little or no impact on achievement for low socioeconomic children, and a negligible effect for middle or high socioeconomic children. With the exception of the second grade compensatory children, instructional emphasis had less impact on achievement than did instructional time. Finally, girls made higher gains on the Metropolitan Achievement Test than did boys. Low socioeconomic girls and high socioeconomic boys made the smallest gains, and high socioeconomic girls and low socioeconomic boys made the larger gains.

Instructional time appears from this study to have a significant impact on achievement in reading, particularly for low socioeconomic children who are relatively young and lower in reading achievement. While instructional emphasis on skills was also an important variable, it appeared to have less impact on achievement than instructional time.

Medley's study (1977) of grades 3 and below for pupils of low socioeconomic status indicated that effective teachers in these grades devoted more time to task-related or "academic" activities. The class was more structured, and there was less time when the children were unoccupied. More effective teachers also spent less time in class discussing matters unrelated to lesson content. While effective teachers of low socioeconomic students had students spend less time on seatwork than less effective teachers, the effective teacher spent more time checking individual pupils at their seats and was more diligent when doing so. When the effective teacher talked to an individual pupil, the teacher tended to talk longer and pay more attention to the pupil than did the less effective teacher. When the effective teacher allowed pupils to work independently, the teacher actively supervised them giving careful attention to those individual children who needed it. The less effective teacher assigned seatwork and left the students pretty much to themselves. Any student who needed help had to seek it from the teacher. Rim and Coller (1978) supported Medley's findings by demonstrating that child self-instruction was negatively related with residualized Metropolitan Test scores.

Harris and Serwer (1966) analyzed the results of the CRAFT Project, which was designed to compare programs in reading for elementary school children using a Skills-Centered approach and a Language-Experience approach. Each of these programs had two components. The Skills-Centered approach used a basal reading program, as well as a basal reading program plus an intensive phonics program. The Language-Experience approach used as regular language-experience procedure with a normal amount of audio-visual materials, as well as a language-experience procedure with extra audio-visual materials. An analysis of data collected on disadvantaged students from 12 schools in New York indicated that instructional time was an important variable, and possibly even more important than instructional method. Although the total instruction a day was the same for the two approaches (170 minutes/day), the time spend on reading differed greatly. The Skills-Centered teachers spent 55 percent of their time in reading and 45 percent of their time on supportive activities. Language-Experience teachers spent 39 percent of their time in reading and 61 percent on supportive activities.

There have been two studies that have focused on the amount of time a child attends school and achievement. Additional analyses of the data from the CRAFT Project indicated that students who attended school on full sessions showed favorable achievement results when compared with children on split sessions. Guthrie et al. (1976) also reported that attendance at elementary school was important for achievement, particularly for the low socioeconomic child. Guthrie's analysis of Jencks (1973) study of secondary school children in Holland indicated that their ability scores dropped by one-half a standard deviation because the elementary schools in Holland were closed during World War II. Prince Edward County schools closed rather than integrate, and when the schools reopened, black children who had not attended school for several years scored significantly lower on achievement tests when compared with other black children of the same age. Test scores of children in New York City dropped commensurate with the amount of time out of school during the 1968 teacher's strike.

Stallings (1978) reported an unanticipated relationship between leisure reading and absence rate. Students came to class less frequently in classrooms where they more frequently engaged in leisure reading. Apparently, a high level of leisure reading can reflect lack of teacher preparation and inefficient classroom structure. Stallings also pointed out that leisure reading may be related differentially to classroom absences within different subgroups of the classroom, depending upon the reading ability of the students. Less able readers were absent more often in classrooms with high amounts of leisure reading.

Supplementary Materials

The research available on the effect of the use of supplementary materials on achievement is limited. The CRAFT Project employed supplementary materials such as audio-visual material or supplementary reading material. Rosenshine (1976) pointed out that both the underuse and overuse of supplementary materials is negatively related to achievement. The moderate use of a variety of materials or the relatively frequent use of a few materials appears to be optimal for achievement. The closer the supplementary materials are to the basal or primary book used in the class, the more effective they will be in increasing achievement.

Classroom Procedures

Beginning with an appropriate diagnosis of the strengths and weaknesses of the students in a compensatory education program and moving to the implementation of the objectives and goals of the program in the classroom, there are a number of classroom characteristics that have been examined as they relate to academic achievement.

The first is the value of an appropriate diagnosis. Powell (1977) points out that, once the educational deficits are known, it is important to discuss with the students what their needs are in order for them to see the relevance of a particular program. Fisher et al. (1978) agree with Powell's statement and argue that, once teachers have the diagnostic information, it is important that a structured program be at the student's appropriate level and based on each student's educational deficits. Guthrie et al. (1976) points out that the feedback received from the students can serve as an ongoing diagnostic aid to the teacher for further planning. Stallings (1978) suggests that many compensatory education classrooms are more homogeneous than heterogeneous in composition and that common planning and diagnosis across students is more realistic. Fisher (1978), in his study entitled Beginning Teacher Evaluation Study, analyzes conditions that foster learning in the classroom. One of his findings is that teacher awareness of the strengths and weaknesses of the students is associated positively with learning. Thus, it would seem that an appropriate diagnosis is an effective way to become aware of student strengths and weaknesses.

A good deal of research has been done on the goals set by the teacher in the compensatory education classroom. Fisher (1978) found that there is a positive relationship between teacher emphasis on academic goals and academic learning. He stated that teachers who are oriented toward affect to the exclusion of academic instruction have a negative relationship with academic learning in the students. The objectives for compensatory education programs need to be clearly stated, and McDill et al. (1969) found that one of the major tasks of the compensatory education teacher is to plan goals carefully, and then develop specific learning objectives to achieve these goals. Spartz et al. (1977), in comparing successful and unsuccessful schools, found that successful reading and math programs in Delaware had an increased number of specific objectives between grades 2 and 3 and between grades 3 and 4. This suggests that high achieving schools have better sequenced programs of instruction.

Hawkridge et al. (1968) examined secondary programs which appeared to be successful. He reported that successful programs had clearly stated objectives, which were often based on individual diagnosis, and tightly controlled teaching was linked to these objectives. His analysis consistently showed that the addition of personnel, services, or equipment was of no avail,unless each addition of support help was carefully integrated into a well-planned program and was made relevant to the program objectives.

The Outlier Study completed by the New York Education Department (1974) found that teachers in the high outlier schools made less overt effort to maintain class control and had less rigid student behavior, but were more efficient in maintaining the level of control they appeared to want than were teachers in the low outlier schools. Teachers in the high outlier schools were rated as warmer, more responsive, and placed more emphasis on cognitive development. These teachers also had greater achievement expectations of their students. Stallings (1978) found that teachers who were warm and supportive experienced fewer student absences from class. Also, students were absent less in those classes where the teacher spent time managing, holding discussions, and making the rules of the classroom clear.

Both Medley (1977) and Rosenshine (1976) emphasized that the stronger the academic emphasis in the classroom, the stronger the academic results. Rosenshine found that greater amounts of instructional time in reading were beneficial for low socioeconomic children. Medley's review concluded that, in grades 2 and below, the more time devoted to task-related or academic activities, the greater the academic achievement. In these classrooms, the class was more structured, and there was less time in which the student was unoccupied. Effective teachers also spent less class time discussing matters unrelated to lesson content.

An additional finding of the Outlier Study done by the New York Department of Education (1974) was that in grades 1 to 3, teachers in the high outlier schools gave more positive and less negative reinforcement than did teachers in the low outlier schools. In grades 4 to 6, teachers in the low outlier schools gave more positive reinforcement, but tended to use greater amounts of negative reinforcement than did teachers in the high outlier schools. Stallings (1978) also found that corrective feedback has a negative relationship to reading achievement, while probing by the teacher appeared to have a positive relationship to reading achievement. He concluded that positive feedback, probes, and guides were more efficient than negative feedback.

One of the characteristics of effective compensatory education programs identified by Fisher et al. (1978) is the rate of error as it relates to academic achievement. He states that students who perform below grade level achieve better when there are low error rates in their work. This suggests that it is crucial for a student to be placed with material at the student's achievement level and that work done should be easy enough that few errors occur. Fisher also found that, in the early grades, the appropriateness of the academic prescription is highly negatively correlated with high error rate, and that, in grade 5, appropriateness of academic prescription also is related negatively with low error rate. Medium error rate is associated positively with the appropriateness of the academic prescription in grade 5.

Teacher Preparation

Each educational program has particular characteristics unique to that program and the compensatory education program is no exception. Hawkridge et al. (1968) pointed out that schools with successful programs train teachers in the methods, rationale, and philosophy of their program. Harris and Serwer (1966) supported this view and stated that, whatever methods or rationale is used in a school system, those characteristics that were unique to that school system achieved better results when they were used. Guthrie et al. (1976) focused on one specific program, the Intensive Reading Improvement Program, in which the teacher is a key element. Resource teachers were provided with sixty hours of preservice and inservice training and classroom teachers were given 30 hours of training.

One of the findings of the New York Education Department study (1974) was a positive relationship between number of years of experience of the teacher and student performance. The percentage of teachers with some graduate training also showed a consistent relationship with reading and mathematics achievement. After controlling for socioeconomic factors, the percent of teachers having 30 or more credit hours beyond the bachelor's degree showed a significant relationship to all the achievement criteria used in the study.

Summers and Wolfe (1975) reported that teacher experience and the quality of the teacher's education, as measured by a rating of the college the teacher attended, was important to the achievement of the students. Experienced teachers at the elementary school were more effective with high achievement students, but less experienced teachers did better with low achievement children. At the junior high school level, all students benefited from English teachers with more than 10 years of experience. The rating of the teacher's undergraduate institution was related to higher achievement for all elementary students, but especially for low socioeconomic students. At the higher grades, only achievement in the social sciences was related to institution rating. Hawkridge et al. (1968) also reported that the teacher's preparation was essential for student achievement.

Academic Learning Time

Increased instructional time is a characteristic affecting achievement that appears consistently in the literature. Instructional time means the "time during which a student is oriented to the learning task and actively engaged in learning" (Carroll, 1963, p. 725). It is the time when a student is paying attention and attempting to learn.

A landmark study in this area was reported by Fisher et al. (1978) in the Beginning Teacher Evaluation Study where the major variable studied was academic learning time (ALT). Fisher hypothesized that when academic learning time increased there would be gains in achievement. This study was done with second and fifth grade teachers and pupils, where six boys and six girls were observed in the classroom one day each week. A total sample of 129 children in second grade and 122 children in sixth grade was used. All of the students were mainstream students in regular classes and only socioeconomic data on parents' occupation was collected. The BTES reading and mathematics test battery was administered in four segments of 45 minutes on each of two days. Of interest to this section were two of the three components of academic learning that were analyzed. The variable of allocated time, that time designated by the teacher for the learning task, and the variable of engaged time, the time that the student was attending to the task, were analyzed.

The results of the analysis indicated that students who accumulate more academic learning time in a particular subject area will attain higher achievement in that area. Student engaged time was associated positively with learning of both reading and mathematics. That is, both allocated time and engaged time were associated positively with gains in achievement, and higher levels of engaged time produced greater gains in achievement.

The findings from the BTES study need to be tempered with additional findings that suggest that there may be a maximum amount of time during which the student is engaged actively in instruction and gain in achievement. Rim and Coller (1978) reported that the amount of time spent in mathematics-type activities is related positively to achievement gains until a peak is reached when about 30 percent of the school day is devoted to such activities. After that students' mathematics achievement decreases as the amount of time spent on mathematics activities increases. The optimum amount of time on an activity appears to be between 18 and 30 percent of the school day. Beyond that, achievement declines.

Rosenshine (1976) studied direct instructional time as it is related to achievement. He reported that reading achievement was maximal for classes having moderate amounts of child attention, and extremes of attentiveness were associated with decreasing amounts of student achievement. It appears that too little or too much attentiveness, especially if the latter is nonacademically oriented, is nonfacilitative.

Summary and Implications

In the first section of this chapter, a number of studies were reviewed under single headings such as class size or teacher preparation. While this was done to organize the available literature into useful categories, it should be clear that there is an interaction between many of the characteristics reviewed and emphasis on any one characteristic has an effect on other characteristics. In addition, a number of the studies reviewed analyzed several characteristics in each study.

Figure 3 presented earlier provides a paradigm for summarizing the major characteristics identified for effective instruction. The following are the major areas that have been studied as they relate to effective instructional procedures in compensatory education classes or programs. Effective instruction begins with an appropriate diagnosis of the strengths and weaknesses of the individual student. Based on this diagnosis, the teacher who develops clear goals which are clearly stated to the student is more likely to be effective. In the classroom, the use of direct teaching of cognitive and academic subject matter with reasonably high expectations of student achievement produces greater gains in achievement. Students who are actively engaged in the learning task and who receive positive feedback and clear indications of their progress are more likely to show gains in achievement. Finally, smaller class size and small group instruction have been associated with achievement gains.

In reviewing the studies included in this chapter, there are four which reflect the interactive nature of the various characteristics identified as being effective in compensatory education programs. The Beginning Teacher Evaluation Study by Fisher et al. (1978) focused on academic learning time as well as error rate. They pointed out that teacher awareness of the strengths and weaknesses of the students was associated positively with learning. The effective use of diagnostic techniques was shown to be a necessary first step in instructional planning. They also separated out the variables of time allocated to a particular lesson and the amount of time the student was actively engaged in learning. The results of this study indicated that the time engaged in learning was a more accurate measure of student learning than the amount of time the teacher allocated to a particular unit of learning. Associated with academic learning time in this study was the examination of error rate. The combination of low error rate and high academic learning time was associated positively with learning. When the students were in a high error rate learning situation, increases in learning decreased. Increased amounts of teacher monitoring and feedback also were associated with student engaged time in producing gains in achievement.

The New York Department of Education study (1974) also examined factors related to student performance in reading and mathematics. Teachers with more experience and those with advanced college training were more effective at producing student achievement in the classroom. Emphasis on cognitive academic learning in the classroom and a warm, but controlled, teacher attitude were both conducive to achievement in the students. Again, effective teachers in this study were found to hold higher expectations of their students in learning.

Harris and Serwer (1966) reported on the CRAFT Project which examined two different approaches to the teaching of reading in the elementary grades. Each of these approaches were varied in two ways. The Skills-Centered approach, particularly with the supplement of phonics, resulted in higher achievement. The variable of instructional time, also analyzed in the BTES study, was an important variable contributing to increased academic achievement. In the CRAFT study, instructional time was found to be a more potent variable in producing achievement than was instructional method. They reported that the Skills-Centered approach spent 55 percent of the time on reading, while the Language-Experience method spent only 39 percent of the time on reading.

Medley's (1977) comprehensive review of the research reported on grades 3 and below for students primarily from low socioeconomic backgrounds and focused on the relationship between teacher behavior and student learning. Medley found that effective teachers were more task-oriented and emphasized academic learning more than did less effective teachers. The effective teachers had more structured classes and spent less time discussing matters unrelated to the content of the lesson. Less effective teachers spent more time working with small groups, while the effective teachers worked more with large groups of students. The levels of the questions asked in the effective teacher's classroom were at a lower level on Bloom's taxonomy, and there were fewer pupil-initiated questions. Effective teachers spent more time and attention with pupils during seatwork and monitored pupil progress more closely.

It is clear that stressing a single characteristic of instructional organization to the exclusion of others is not an effective approach to improving compensatory education programs. From the results of the literature reviewed for this chapter, the following appears to be an accurate description of what an effective classroom would look like. The classroom has no more than 28 students, and probably fewer. The teacher is trained and experienced and has participated in both inservice and preservice training and/or workshops which have focused on the methods, procedures, and philosophy of the school where the classroom is located. The teacher has clear goals and expectations for the students and these goals have been developed as a result of a careful diagnosis of the strengths and weaknesses of the students. The classroom atmosphere is warm and supportive with positive feedback but with high achievement expectations for the students. The teacher is actively engaged in the process of learning in the classroom and allows the students relatively little time in individual seatwork exercises. When seatwork is used, the teacher is an active monitor of the students' activity and interacts with the students. The students are task-oriented and are allowed little time in which they are unoccupied with learning. The students are aware of the goals of the teacher and have a clear idea of what is expected of them. The teacher asks simple and direct questions, and relatively few pupil-initiated questions occur. The teacher selects the student who is to answer the question and if the student's answer is incorrect, the teacher attempts to lead the student to the correct answer. Student answers to questions are usually not discussed and the teacher moves on to the next task.

The amount of time spent on learning is of greater importance than the particular method employed. The teacher is aware of the amount of time it takes to teach a lesson. The amount of time on instruction of a single subject is high, but does not exceed more than 30 percent of the class day. Lessons are planned so that the error rate of the students is relatively low and experiences of success are high. At the same time, the students are expected to be actively engaged in academic learning and to spend little time in unrelated activities such as workbooks or talking amongst themselves.

Whenever possible, additional personnel are used in the classroom. The trained reading specialist serves both as a teacher of the students and as a resource for the teacher. Supplementary materials are available in reasonable quantities, but the decision to the use of these materials is determined by their direct relevance to the lesson being taught. Supplementary materials are not used to fill time that could be used in more active instruction. When the teacher breaks the classroom into groups, the size of the groups range from three to six, and the teacher works with an individual pupil only occasionally.

The characteristics just described are not atypical of many classrooms. It is important to indicate that it is the organized combination of many of these characteristics as a total unit that contributes increased student achievement. While these characteristics may not be as important for classes with high achieving students or students from high socioeconomic backgrounds, for the low achieving student in the compensatory education class who comes from a low socioeconomic background, these characteristics, in combination, have been demonstrated to lead to significant gains in student achievement. A final word needs to be said about "mastery learning." Mastery learning is based on the belief that, under appropriate instructional conditions, virtually all students can learn most of what is taught (Block, 1974). Mastery learning applied to a heterogeneously organized classroom, such as those where compensatory education students are mainstreamed with high achieving students, results in a much slower pace of learning to the detriment of the high achieving student. Under these conditions, the price paid for such an approach is a slower pace of learning and fewer learning objectives being completed. Johnson and Hennig (1978) reported that in a fifth grade class using mastery learning, fewer than half of the stated objectives were met. The students, because of the much slower pace, were simply not exposed to these objectives.

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CHAPTER IV

CLASSROOM ENVIRONMENT

This chapter is concerned with the human relationships which exist between the teacher and pupils in the classroom--that is, with relationships other than those specified by the curriculum and/or specific instructional procedures.

Introduction

Beliefs about the human relationships which are desirable in the classroom have varied widely in years past. Generally, there seem to have been two major emphases: one which was "pupil-centered"--an emphasis on a warm emotional relationship in the classroom, on freedom for pupils to explore ideas of their own, and ways of learning on their own, often with the expectation that the learning which occurred in the classroom would be closely related to the real-world-experiences of the child; there was strong belief in the readiness of the child to learn if he was given freedom for it and support for it in the classroom.

Such an emphasis was "progressive education," which began, initially at least, with the writings of Dewey, but clearly went beyond his intentions during the later periods of its heyday. Although the influence of this movement, as a movement, waned in the 30's and 40's, its general orientation has continued to be held and implemented to various degrees by many educators.

The other major emphasis occurred with the launching of the Russian Sputnik in the 50's, in which renewed attention was given to the learning of subject matter for its own sake, and the emphasis on the "whole child" was deemphasized. Concern was expressed particularly for the small numbers of students who majored in mathematics or the hard sciences, and the development of new curricula was undertaken by scholars in specialized areas. The book Crisis in the Classroom (Silberman, 1970), and its reference to "mindless" emphasis on subject matter in the classroom, was an element leading to a swing away from the subject-matter emphasis and back to the child as the learner, which was part of the movement toward open classrooms in the 60's and 70's, as well, probably, as the development of the British infant school. During the same period of time, developments from learning theory resulted in programmed instruction and teaching machines. The combination of Skinnerian conditioning principles and programmed learning resulted in contingency management teaching.

As a consequence, during the last decade or so, education has witnessed two principal movements--one, contingency management teaching which has a primary focus on conditioning principles, closely focused learning activities, and small-step learning organized in learning programs. The other has been the movement toward open classroom growing out of the influence of Crisis in the Classroom and the British Infant School, which has many elements in common with progressive education as it existed early in the century.

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Probably most of the human and fiscal resources committed to innovation in education in the elementary schools in the past decade or decade and a half have been committed to one or the other of these movements away from the traditional self-contained elementary classroom. The following is an overview of these two innovations.

Open Classrooms

A number of evaluations of open classrooms have appeared in the past few years, and generally, the results have not been favorable. Perhaps the most credible study was that of Inman (1977). It was a survey study carried out by the North Carolina Department of Education in which a random sample of schools was drawn from the records for the state as a whole, and surveyed for their teaching practices. The survey was carried out using a questionnaire developed earlier by Walberg and Thomas (1972) to distinguish open classrooms from others. The results of the study indicated that pupils learned less in open classrooms and that there were no compensating advantages in terms of pupils' attitudes toward school or other non-subject-matter measures.

Probably the best known study is that of Bennett (1976) who compared achievement and attitude outcomes for British Infant Schools and those which were more traditionally organized. Again, the finding was that on the average, pupils learned less in the open schools and that there were no compensating gains in areas other than subject matter learning.

These results are typical of others which have been reported in the past few years, one of the few exceptions being that of Stallings (1975) who reported the same findings of decreased achievement for the implementation of the British Infant School in Follow Through. But in contrast with the findings of other studies, she reported increased growth of pupils in the Raven's Progressive Matrices, a measure of complex problem solving.

In general, the results contrasting open education with traditional forms of education have shown open education to be less effective in supporting pupil learning and to have no compensating advantages on other measures, to a degree which is unusually consistent for findings in educational research.

Contingency Management Teaching

This is the style of teaching which evolved from the applications of Skinnerian conditioning and programmed instruction. It has been applied primarily at the lower grade levels and the studies of it have typically been carried out with disadvantaged pupils. This style of teaching is characterized by close teacher supervision, high levels of pupil involvement, and utilization of materials in which the development of pupil knowledge takes place by small steps so that the percentage of correct responses is quite high, and each new step grows naturally from previous learned material.

Research generally supports the effectiveness of this style of teaching. But as Rosenshine (1976), a principal advocate of Direct Instruction, comments that these generalizations should be limited to "teaching aimed at fostering reading and mathematics achievement in primary grade classes of children who are low in verbal ability and in socioeconomic status. The extent to which these generalizations need to be modified as one moves to other grade levels and contexts remains to be determined" (p. 304). Other research does raise questions about the effectiveness of aspects of this style of teaching for pupils who are not disadvantaged, and for more complex learning objectives. Details of this research will be presented later in this chapter.

This program of teaching was developed in response to the need to educate disadvantaged pupils in ways different from what schools traditionally had done, on the assumption that traditional schooling was failing disadvantaged pupils. Unfortunately, there now appears to be a fairly widespread movement to adopt that style of instruction, or considerable aspects of it, in the schools generally. Recommendations for teaching the basic skills in the State of Florida, which are now being proposed, follow that model without recognition of the research evidence that suggests that this style of teaching may best fit only these disadvantaged lower grade pupils learning simple objectives (Florida Educational Council, 1978).

The movement towards this style of teaching has drawn heavily from reviews by Rosenshine (1976), and Rosenshine and Berliner (1978), which have characterized these principles as "Direct Instruction." A summary of recommendations is shown in Table 2.

It is generally true that a simple answer to a complex problem has an advantage over more complex answers, and that the simple answer may risk being misapplied. While the articles by Rosenshine (1976) and Rosenshine and Berliner (1978) qualify carefully the areas in which that style of teaching is expected to be effective, there appears to be reason for concern that the applications may be more widespread than will be functional, and that learning for some pupils and for some objectives may suffer as a result.

Table 2

A Summary of Elements in Direct Instruction*

Elements	Suggested Positive Correlates	Suggested Negative Correlates
Time and Activities	Time structured by the teacher	Time spent on arts, crafts, dramatic play, active play, stories
	Time spent on number and reading activities using textbooks and academic workbooks, or in verbal interactions on reading and mathematics	Gamelike activities Number of interest centers Large number of different, concurrent activities
	Time spent in seatwork with academic workbooks through which the pupils proceed at their own pace	Hours of unstructured time Frequent socialization
Work Groupings	Students worked in groups supervised by the teacher	Free work groups Children working independently without supervision of teacher
Teacher Directions and Questions	Teacher directs activities without giving pupils choice of activities or reasons for the selection of activities	Teacher joins or participates in pupil's activities Teacher organizes learning around pupil's own problem
	Learning is organized around questions posed by the teacher	Teacher approaches subject matter in an indirect, informal way
	Teacher asks narrow question	Teacher encourages pupil to express himself freely
	Teacher asks direct questions that have only a single answer	Teacher permits pupil to suggest additional or alternative answers.

Table 2 (continued)

Elements	Suggested Positive Correlates	Suggested Negative Correlates
	Adult commands, requests, or direct questions that had an academic focus	Pupil initiates activities Pupil has freedom to select activities Teacher commands and requests, nonacademic Teacher open-ended questions, nonacademic
Student Responses	Students give a high percentage of correct answers both in verbal interaction and in workbooks Students are encouraged to attempt to answer questions (rather than saying "I don't know")	Child open-ended questions and nonacademic commands Adult nonacademic commands or requests, or open-ended questions Child nonacademic responses Child general comments to adults or among children
Adult Feedback	Teacher immediately reinforces pupil as to right or wrong Adult feedback had an academic focus Teacher asks new question after correct answer Teacher gives answer after incorrect answer	Adult feedback on nonacademic activities (e.g., play, music)

Sources: Stallings and Kaskowitz, Follow Through Classroom Observation Evaluation, 1974; Soar, Follow Through Classroom Process Measurement and Pupil Growth, 1973; Jere E. Brophy and C. M. Evertson, Process-Product Correlations in the Texas Teacher Effectiveness Study: Final Report, Austin, Tex.: The University of Texas, 1974.

*From Rosenshine (1976).

Description of Selected Projects: Effectiveness of Teaching in Naturally Occurring Classrooms

The Nature of the Research to be Reviewed

Rather than review research in detail from programs of instruction such as open education or contingency management teaching, the results will be reviewed from a number of studies which have measured a variety of aspects of classroom behavior and related them to measures of growth made by pupils.

This procedure will be carried out for two reasons. First, where a program is implemented as a whole, nonfunctional aspects of that program may receive misleading support. Assume, for example, that teacher praise of pupils' academic work is unrelated to achievement gain, but that high pupil engagement in academic work is strongly positively related to achievement gain. If both of these aspects of teaching usually occur together, because they are components of a program, then praise will falsely appear to be related to achievement gain, since it regularly appears along with another behavior which does, in fact, support pupil gain. So a clearer picture of effective relationships can be found in settings in which the different aspects of teaching vary at least somewhat independently. A second reason for reviewing results from a variety of studies and a variety of settings is that a small number of studies have been done at intermediate grade levels and with upper SES pupils, in contrast to the studies of programs which have been carried out almost entirely with disadvantaged pupils in the first three grades.

The results which will be reviewed all have been obtained from "counting" measures of classroom behavior. That is, rather than a rating of the warmth of the emotional climate of the classroom, the results from the measures reported here are ones in which the number of times a teacher smiled at a child, ruffled a pupil's hair, patted or hugged a pupil, or listened intently to something he said was counted. Each of these behaviors is defined with care and listed in a schedule, so that an observer simply checks the behaviors that occur and leaves unchecked those which do not occur. Items of this sort produce relatively dependable records of classroom behavior when used by observers who have been given a requisite amount of training.

Not only is the relative objectivity of measures of this sort an advantage, but the fact that the individual items of behavior can be separately scored and analyzed statistically makes it possible to discover that what seems logically to be a single concept of classroom behavior is, in reality, two or more. For example, the concept of the warmth of emotional climate in the classroom, which is often rated on a single dimension from warm to cool, is in fact, at least three dimensions (Soar and Soar, 1978). Expressions of warmth by teachers and pupils are highly inter-related; that is, where one appears the other also appears with relatively high consistency. But expressions of negative affect--criticism, scolding, demeaning, and humiliating others by pupils is almost entirely unrelated to parallel behaviors by teachers, or to expression of warmth either by teachers or pupils. Probably the reason this is true is that some teachers are able to use criticism and scolding as the means by which they block virtually all disorderly behavior by pupils, but other teachers, who also criticize and demean pupils, have classrooms that are hostile and chaotic. It seems intuitively compelling (and it is statistically true) that a single measure which contains three unrelated dimensions is not likely to produce meaningful results. Rating scales are likely to present that problem, so for that reason only results which are based on counting measures of relatively explicit behaviors will be reported here.

This review will differ further in a way from other reviews in this report. Not only will it not report data from programs for the reasons cited above, but it will not present results from individual studies of classroom environment, since there have been several very recent, very thorough reviews which do that. One, in particular (Medley, 1977), reports detailed findings from the original studies, so that the reader's problem is not one of going back to original reports to get the results, but rather is one of interpreting a great deal of information to arrive at an integrated conception of classroom environment which would be serviceable in teaching.

The procedure which will be followed here will be one of describing the reviews themselves, and then describing the general nature of a limited set of studies. The studies which will be reviewed are those which are large scale and/or recent, since the field has generally advanced over the years; or, in one case a programmatic series of research studies, using similar instrumentation, which have taken place over a number of years.

With respect to recent work, Gage (1978) (the editor of the Handbook of Research on Teaching--a major publication by the American Educational Research Association) comments:

> . . . That research culminated in large measure in four major studies (Stallings and Kaskowitz, 1974; Brophy and Evertson, 1974; MacDonald and Elias, 1976; Soar, 1973) that represent, in the aggregate, an investment of several million dollars in the search for teaching behavior correlates of academic achievement and affective outcomes in the primary grades.
>
> The findings of these four studies may be regarded as providing a capstone of the correlational approach to meeting the need for an improved scientific basis for the art of teaching and the education of teachers. (p. 1)

Those four studies will be described briefly, supplemented by several others. Specific findings for other studies, where relevant, will be cited in the integration of the findings which will be presented later in this chapter.

Reviews

Four major recent reviews have summarized research. Of the two which have attracted most attention and have had most influence, the earlier is that of Rosenshine (1976). Drawing principally on the four studies indicated by Gage as a "capstone," but supplementing with other studies, Rosenshine integrates information indicating that the greatest achievement for disadvantaged first graders learning basic skills occurs in classrooms which are closely structured, highly organized, in which the time pupil groups spend with adults is maximized, and in which a large proportion of classroom time is spent with pupils engaged in academic learning activities. He characterizes this pattern as "Direct Instruction." Almost certainly this review and integration is one of the two most influential sources dealing with teacher effectiveness research.

The other review which is one of the two most influential ones is that of Medley (1977), which was sponsored by the American Association of Colleges for Teacher Education. It was supported as a service to teacher education institutions and was intended to make available to them best current knowledge about research on teacher effectiveness. This review is unique in that, in addition to presenting an interpretation by the reviewer, findings taken from the original reports are made available to the reader in extensive amounts. In order to reduce the sheer volume of this information, and to increase its clarity and dependability, Medley set stringent quality standards for the studies to be reviewed, which reduced the number to 14, from the hundreds which are extant. To be included, he required a study to have collected observational data using a "low-inference," "counting," kind of classroom measurement as described earlier, the study must be generalizable to other teachers, the relationships reported must be practically important as well as statistically significant, and the outcome measure under study must represent pupil growth over a school year.

For this limited set of studies, then, the results which were reported were the original relationships between the measure of teacher or pupil behavior, or pattern of organization in the classroom, and pupil gain. The results are brought together in 43 tables under such headings as Pupil Initiation, Group Size, Steady-State Teacher Talk, and Positive Affect. The results were further grouped by whether the pupil gain measure was one of reading, arithmetic, or a non-cognitive measure, whether the pupil group was high or low socioeconomic status, whether the outcome measure was at a high or low cognitive level (that is, complex or simple) and finally, whether the findings were obtained in the primary grades or the intermediate grades.

This system of classifying results is an important advance, since it demonstrates consistencies in effects which appear to be inconsistent without this classification. For example, dimensions of classroom behavior which were related to measures of pupil gain for both high and low socioeconomic status pupils reversed sign more than 60% of the time, indicating that the same classroom behavior which had positive effects for one pupil group had negative effects for the other. Unless the results are classified in this way, they appear to be inconsistent. Similar differences, although not so strong, appear across the grade level groupings, and across differences in outcome measures.

Medley reported 613 correlations between classroom behavior and pupil outcome, although he only reported correlations strong enough to account for 15% of the variance in the outcome measure, approximately equivalent to a correlation of .39. This was done with the intent of presenting only the strongest relationships, and those which were presumably most dependable.

A review by Soar and Soar (in press) integrates into several major threads the findings from four studies of theirs from 1966 through 1973. The studies are essentially programmatic, using observation instruments which were similar in form (virtually identical in the last three studies), and later carrying out tests of hypotheses suggested in earlier studies. The results of those studies are organized into a paradigm which reduces the number of individual variables to be considered, and makes some distinctions not commonly made in the literature. That paradigm is the organizing framework for the later integration presented in this chapter. It is perhaps relevant that the four studies summarized in this review are also four of the fourteen reviewed by Medley, so that a considerable fraction of the body of research he reviewed is represented.

The final review which may be of interest to the reader is that of Ruff (1978), sponsored by the National Institute of Education. Rather than being a review of individual studies, it is primarily a review of reviews. It organizes results of the previous reviews into a smaller number of headings than the Medley review and discusses similarities and differences in conclusions across the previous reviews.

Major Studies

The Brophy and Evertson (1974) study is unusual in several respects. The teachers from whose classrooms data were collected were a subset of previously studied teachers, selected because they tended to produce high or low gain in pupils more consistently from year to year than other teachers. In the first year of the study 31 teachers were included; in the second, 28, 19 of whom had been in the study the year before. Data were collected in both Title I schools (which implied at least a considerable number of low socioeconomic status pupils) and in non-Title I schools (in which the average socioeconomic status was presumably higher). The classrooms were at second and third grade levels.

This study was also unusual in that nonlinear relations between classroom behavior and pupil gain were analyzed, as well as the linear relationships which are typically analyzed and reported in other studies. Additional discussions of particular relevance to this review were a contrast of teacher behaviors which were related to gain for low versus high socioeconomic status pupils (Brophy, 1975) and a more interpretive statement of the teacher behaviors which were related to student learning (Brophy and Evertson, 1975). In both papers, detailed findings are interpreted in understandable fashion.

The Stallings and Kaskowitz (1974) report identified differences between classroom behaviors in seven different programs in Project Follow Through and related differences in classroom behavior from classroom to classroom to achievement gain made by 105 first grade and 58 third grade pupils. Since the data were collected in Follow Through, the pupil group is primarily low socioeconomic status. Further presentation and discussion of the results is available in Stallings (1975).

Good and Grouws (1975) studied achievement in mathematics in 41 fourth grade classrooms in a suburb of a major midwestern city. Pupils were homogeneous in socioeconomic status, all being middle-class, and the curriculum used in teaching math was held constant across the classroom studied. Following the procedures in the Brophy and Evertson study, teachers who were consistent in their effects on pupils were chosen for the study, average gain made by pupils across the year was related to the series of observation items both for all teachers, and also for the nine highest and nine lowest teachers in terms of pupil achievement. Parallel results were obtained from these two sets of analyses.

McDonald and Elias (1976) studied 41 second grade classrooms and 54 fifth grade classrooms. Teachers were drawn from eight school districts scattered throughout the state of California, and from urban, suburban, and rural districts. Although the pupil group presumably ranged through a variety of socioeconomic status levels, analyses were not carried out separately by social status level.

Solomon and Kendall (1976) studied 50 fourth grade classrooms in Montgomery County, Maryland, heavily weighted toward upper socioeconomic status levels. The analyses were carried out in a way which makes interpretation of the data difficult, however. Clusters of behaviors that tended to occur together naturally were pooled for analysis. On the one hand, this represents natural occurrences in classrooms well; but on the other hand, makes difficult sorting out the effects of individual variables within these clusters. There is support in a general way from these analyses, but the integration of findings into the paradigm utilized here is not as easily carried out with these data as some others.

Coker, Lorentz and Coker (1976) report data from 50 classrooms, grades 3 through 8, spanning the socioeconomic status levels, but with the lower levels disproportionately represented. The sample was principally rural and small town. The study is unusual in doing explicit analyses of differences in classroom behavior which are most effective for pupils who differ in grade level and socioeconomic status, and objectives which differ in level of complexity. Nonlinear relations between classroom behavior and pupil gain were also tested.

Combined results for the first year, and a second year in which 41 classrooms were studied, were reported by Lorentz and Coker (1978). Results were presented as relations between teacher-derived competencies and pupil gain, with the finding that the competencies were largely unrelated to gain, but mostly related negatively when they did relate.

The final series of studies is a programmatic series in which there was some parallelism of observation instruments beginning with the first study, but the latter four data sets have used essentially identical instruments. Soar (1966) reported data from 55 classrooms, grades 3 through 6, for a sample that spanned the socioeconomic status range, but with the higher levels disproportionately represented. Nonlinear relationships were reported later (Soar, 1968). Soar and Soar (1972) compared classroom behavior in different programs in Follow Through across 70 kindergarten and first grade classrooms, and relationships between classroom behavior and pupil outcomes for 20 first grade classrooms. Since the sample was from Follow Through, it was predominantly low SES. Soar (1973) reported differences in Follow Through programs and relations between classroom behavior and pupil gain for 96 kindergarten classrooms, 158 first grade classrooms, and 45 second grade classrooms. Again, the Follow Through data reflected primarily low SES pupils. Soar and Soar (1973) reported relations between classroom behavior and pupil gain for 59 fifth grade classrooms and 22 first grade classrooms in North Florida. The sample was approximately balanced between black and white, and rural and urban pupils, with a spread across socioeconomic status levels. The higher SES levels were less well represented than would be proportional on a national basis, however. Soar and Soar (1978) is a re-analysis of those latter data sets, following the paradigm which is the organizing principle for this chapter and analyzing relationships across classrooms (as is typical of these studies), but also relationships within the classroom.

In all of the studies in this series, differences in teaching style have been explicitly sought in relation to the cognitive complexity of the learning objective, and in the latter two samples, tests of differences in optimal teaching style for pupils at different SES levels have been carried out as well as tests for differences due to grade level. In all studies in the program, analyses have also tested for nonlinear relationships, examining the possibility that intermediate amounts of a given classroom behavior might be more functional than amounts of either extreme.

Characteristics of an Effective Classroom Environment

As mentioned earlier, the number of individual findings is so voluminous (613 in the Medley review alone, which is highly selective) that an organizing system seems necessary to make them useful to teachers, administrators, supervisors and teacher educators. In developing such a conceptual scheme, results which seem to conflict have been ignored, as well as those which appear to be what Biddle* calls "isolated curiosities."

A Paradigm of the Classroom Environment for Learning

The paradigm which is used as the organizing principle for these results is presented in Soar and Soar (in press). It represents the atmosphere for learning in the classroom in four separate domains:

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*Bruce Biddle, personal communication.

emotional climate, teacher management of behavior, teacher management of learning tasks, and teacher management of the thinking process.

Emotional Climate. This has to do with expressions of warmth or coolness in the classroom. As indicated above, it is important to distinguish subaspects of emotional climate (Soar and Soar, 1978). Expressions of negative affect by pupils and by teachers are strongly negatively related to pupil achievement gain (Medley, 1977). That is, the more of these negative affect behaviors that are observed in classrooms, the less pupils learn. Some evidence indicates that minimizing negative affect is more important for the learning of low SES pupils than for high SES pupils (Soar and Soar, 1973; Brophy and Evertson, 1974). This presents a special problem in that the low SES pupil is likely to come to school with behavior patterns which are not congenial to the middle-class teacher, who is likely to respond critically. That is, the pupil likely to be most effected by negative affect is most likely to meet it. Conversely, there is some evidence that teacher mild criticism of poor work by high SES pupils is functional (Brophy, 1975).

If emotional climate were considered to be a single dimension, increased pupil gain would be expected where more positive affect is expressed and educators have, in fact, held this belief strongly. However, the results do not support that conclusion. In the Medley review, expressions of positive affect by the teacher are about evenly positively and negatively related with learning. However, a considerable fraction of the positive relationships come from a study of classroom behavior in Project Follow Through (Soar, 1973), in which the same pairing of positive affect and close pupil engagement in the learning task occurred which was cited earlier as a possible misleading circumstance.

In contrast, in studies in classrooms other than Follow Through, positive affect did not relate to achievement gain in any of them; further, in reanalysis of two data sets which clarified earlier findings, positive affect expression related negatively to pupil gain (Soar and Soar, 1978). Again, the greater the amount of positive affect expressed in classrooms, the less the pupils learned. This does not mean that teachers should avoid the use of positive affect; rather, it suggests that classrooms in which these behaviors are unusually frequent are not likely to be functional for learning.

One kind of positive affect, praise, has received special attention, probably because it is often valued so highly by educators. The results for praise are as unpromising as the results are for the general area of positive affect. Brophy and Evertson (1974) found praise most often related either negatively or not at all with achievement; only under a unique set of circumstances did praise relate positively to achievement. In a laboratory study, Rowe (1974b) found that pupils from classrooms where praise was frequent tended to accept, from a "teacher," statements which contradicted objective evidence, whereas pupils from low praise classrooms were much more likely to respond by repeatedly citing their own evidence, arguing that they were correct. Stallings and Kaskowitz (1974) summarize their findings with respect to praise as follows: ". . . of all the interaction variables in first grades, only praise was so negatively related (-.60) to independence" (p. 304). Also ". . . the variable, all adult praise, showed a negative effect upon performance on the Raven's test (a measure of complex problem solving) and the Coppersmith Self-Esteem Inventory" (p. 305). Apparently dependency and conformity by pupils are likely outcomes in classrooms where praise is frequent.

It is clear that the classroom should not be negative and critical; but the evidence is not clear that it should be high in positive affect. Rather, some evidence suggests that it should not be, and that the use of praise, in particular, is questionable. So the conclusion which appears to be safest is that it should be a classroom which is matter-of-fact, routine, and task-oriented, rather than a setting where affect is prominent.

Teacher Management of Behavior. This domain of classroom behavior has to do with the amount of freedom which pupils have to socialize, to subgroup, to move about in the classroom, or to whisper. That is, it has to do with the level of nonsubstantive, physical activity that occurs in the classroom, an extreme of which appears to be disorder. Results are relatively consistent in indicating that the less physical activity there is in the classroom, the more pupils learn (Medley, 1977; McDonald and Elias, 1976).

Intuitively, it seems as though there must be some limit to the closeness of control which a teacher should exercise over pupils to avoid creating a "prison-like" atmosphere in the classroom which would be counterproductive. Perhaps the reason that no evidence of this appears in the findings is that teachers as a group have been wise enough not to create situations which were so extreme as not to facilitate learning. There is also some evidence that appropriate learning tasks, paced to keep pupils absorbed, and "smooth" transitions from activity to activity, tend to minimize disorderly behavior (Brophy and Evertson, 1975).

Teacher Management of Learning Tasks. This aspect of classroom behavior has to do with the relative balance between teacher assignment of learning activities to pupils and monitoring their process of carrying them out, in contrast to pupils having some degree of choice in what they wanted to do, within the limits of materials that were set out, during a considerable proportion of the classroom day. There were occasional organized activities in which pupils were read to, or took part in a science lesson, for example, but these were not a major part of the day. However, in other classrooms, the pupil had very little time in the morning in which he had any choice about what he was to do, how he was to do it, or when he was to do it. In the lower grades, the day was likely to be lightened in the afternoon by such activities as story time, nap time, or show and tell, but this was variable.

Results which seemed to belong to this domain are generally of two sorts. Studies, which have not distinguished the level of complexity of the learning outcome, seem to find that the closer the control exercised by the teacher (and the curriculum), the greater the pupil learning which occurs (Rosenshine, 1976). That is, pupils learn best if the teacher assigns the task, gives pupils feed-back which keeps them organized in their activities, monitors their progress through them, and evaluates the result. On the other hand, the findings are different for studies which have separated the measures of learning into those which are simple (that is, such rote memory learning as names and dates in history, the multiplication table in arithmetic, naming letters or numbers, or the sound each letter stands for), from activities of intermediate levels of complexity (such as decoding in reading, in which words are read by identifying letter sounds and combining them to produce the sound of the word, or carrying out simple arithmetic operations when the operation is specified), and separated both of these from more complex activities (which involve reading for meaning, inferring the feelings of a character in an incident, or deciding which arithmetic operations should be used to solve a problem expressed in words, and solving the problem). In studies in which the complexity of the learning outcome has been explicitly identified ahead of time, the degree of teacher control of the learning task which seems to be optimal for pupil learning appears to vary with the complexity of the learning task. Where the learning task is either of a low or intermediate level of complexity, higher degrees of teacher control appear to be functional, sometimes with greatest learning occurring where teacher control is highest. But where the learning objective is a complex one, some findings indicate that teacher control of pupil activity can be too close for a maximum of learning to occur. Rather, the results suggest that, for pupils to learn to do more complex thinking operations, they need some degree of freedom to work on their own, to follow different modes of attack on the problem, to apply ideas of their own, and to test alternative approaches--in short, they need some freedom of independent approach to the problem. Apparently pupils do not learn to think best where the entire learning process is prescribed (Soar and Soar, 1976). This result has been found even for first-grade, disadvantaged pupils (Soar and Soar, 1972).

There is also evidence that pupils in the third year of a contingency management teaching program in Follow Through fell behind the non-Follow Through pupils whom they had exceeded in performance the previous two years. Item analysis of the measures of achievement indicated that, when the nature of the test material required manipulation of concepts or processing information, these pupils from a highly structured teaching program lost the advantage they had had when simpler thinking operations were tested.* Apparently, even for low socioeconomic status pupils, some freedom of action in the learning process is necessary if they are to learn to solve more complex problems. Support for this conclusion also appears in the Rim and Coller (1978) re-analysis of the Stallings and Kaskowitz (1974) data in which they frequently found intermediate amounts of teacher control to be associated with greatest pupil learning.

Teacher Management of Thinking. This domain of classroom instruction has to do with two aspects of teacher control: (1) the freedom pupils have to explore or suggest alternative ideas or alternative answers to questions posed by the teacher or by their learning materials, and (2) the cognitive level of the questions asked by the teacher; that is, do teachers ask simple factual questions, do they ask application questions, or do they ask questions which ask pupils to put ideas together in new ways? These two aspects of teacher management of thinking tend to be related in the following way, for example: a drill session or rapid fire recitation can hardly ask for other than rote memory or factual information, and the pupil has no freedom of thought and no freedom to explore alternative ideas. But, a teacher can ask complex questions which require pupils to think at more complex levels than they find congenial. An application question in arithmetic, for example, in which a child must decide what operation to do and carry out the operation is a relatively complex question; yet, requires an answer which is right or wrong, and the pupil may have no freedom to explore alternative procedures or other ideas. Results for this area of teacher control of pupil thinking parallel those results for control of pupil learning tasks. For complex thinking processes of pupils, intermediate amounts of teacher control seem to be most functional (Soar and Soar, 1976). That is, the evidence again indicates that the teacher needs to structure or focus the problem, perhaps provide limits within which the thinking process is to proceed, but to give pupils some degree of freedom to pursue ideas of their own or alternative approaches within the structure of the problem. But, if the objective for today's lesson is learning the multiplication table or a list of fifteen spelling words, then a drill session in which pupils are moved from question to question in rapid fire fashion with no freedom to explore ideas is an entirely appropriate and indeed an effective learning experience.

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*G. Cline, Personal Communication.

The clearest evidence indicates that lower grade teachers who interact with pupils at a low cognitive level have greater achievement gain in their classrooms than teachers who interact with pupils at a higher cognitive level (Rosenshine, 1976; Medley, 1977). Some evidence, however, suggests that for above average intermediate grade pupils, greater amounts of high cognitive level interaction may be functional (Soar and Soar, in press).

Evidence for these conclusions with respect to teacher management of the learning task and teacher management of thinking is presented in Figures 4 through 8 which come from four different data sets. Figure 4 shows pupil achievement gain for vocabulary and reading from the Iowa Tests of Basic Skills, both relatively complex outcome measures. The third measure is a measure of creativity from Torrance's battery. The measure on the horizontal axis is the amount of teacher interaction with pupils which is indirect as defined by the Flanders system. It is made up of several measures of the extent to which teachers ask questions or accept and use pupils ideas in the development of the discussion, in contrast to lecturing, giving directions, or criticizing. While the pupils' ideas clearly have input in the discussion, it remains true that the teacher selects and uses some ideas rather than others, and asks additional questions about some rather than others, so that the focus and the progress of the discussion remains, to a degree, in the teacher's hands. The figure suggests that this kind of interaction between teacher and pupils can be either too frequent or too infrequent for vocabulary or reading gain, even for a group of above average third through sixth grade pupils. At the same time, the figure suggests that the greatest amount of this activity was not too much for the development of creative thinking (Soar, 1968).

Figures 5 and 6 are both taken from a sample of first grade Follow Through pupils. The achievement measures are separated into those which appeared to reflect complex thinking activities and those which were simpler or rote memory level activities. In Figure 5, the horizontal measure reflects the extent to which pupils have freedom of choice in the

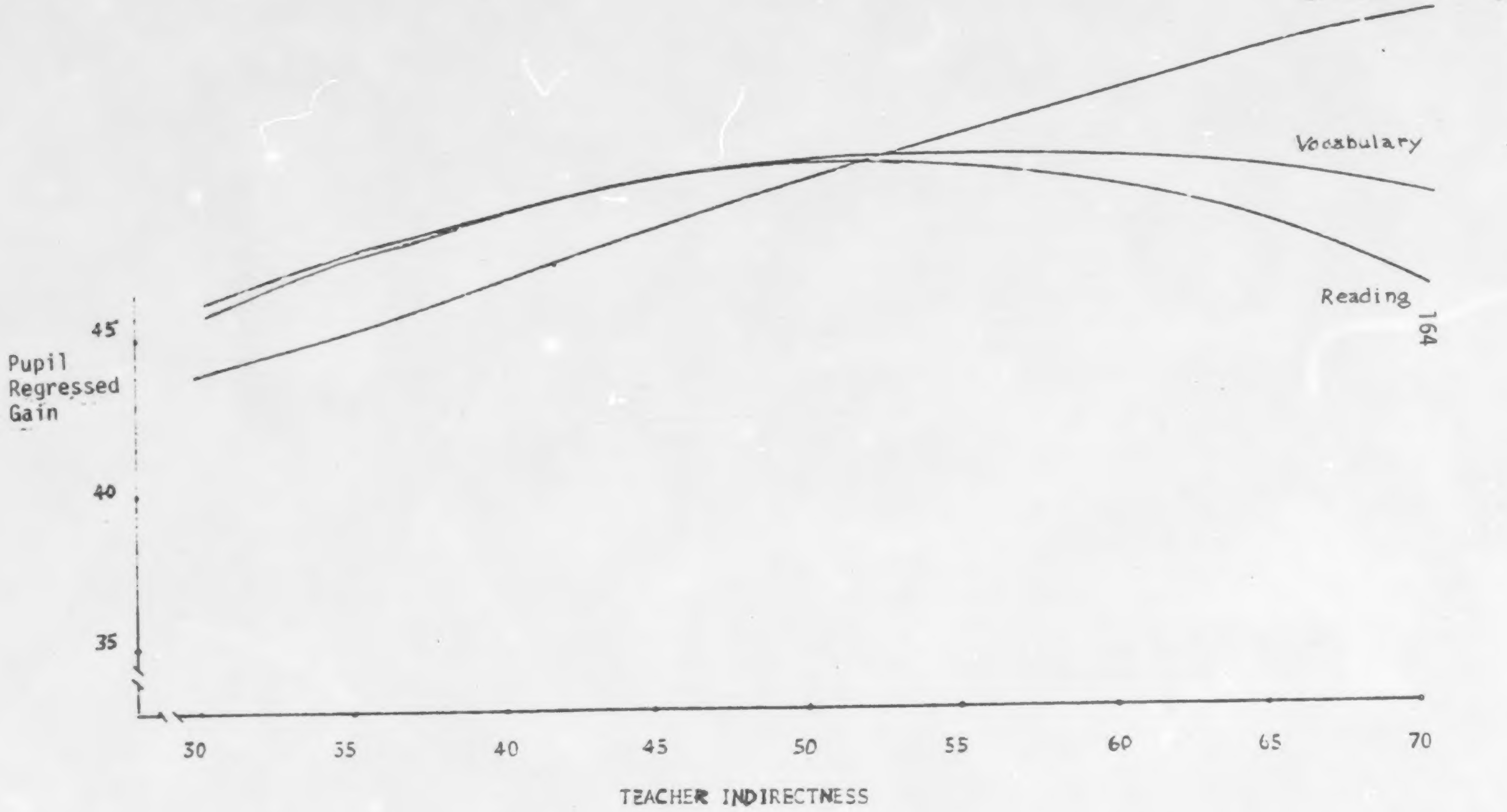


Figure 4. TEACHER INDIRECTNESS RELATED TO PUPIL GROWTH

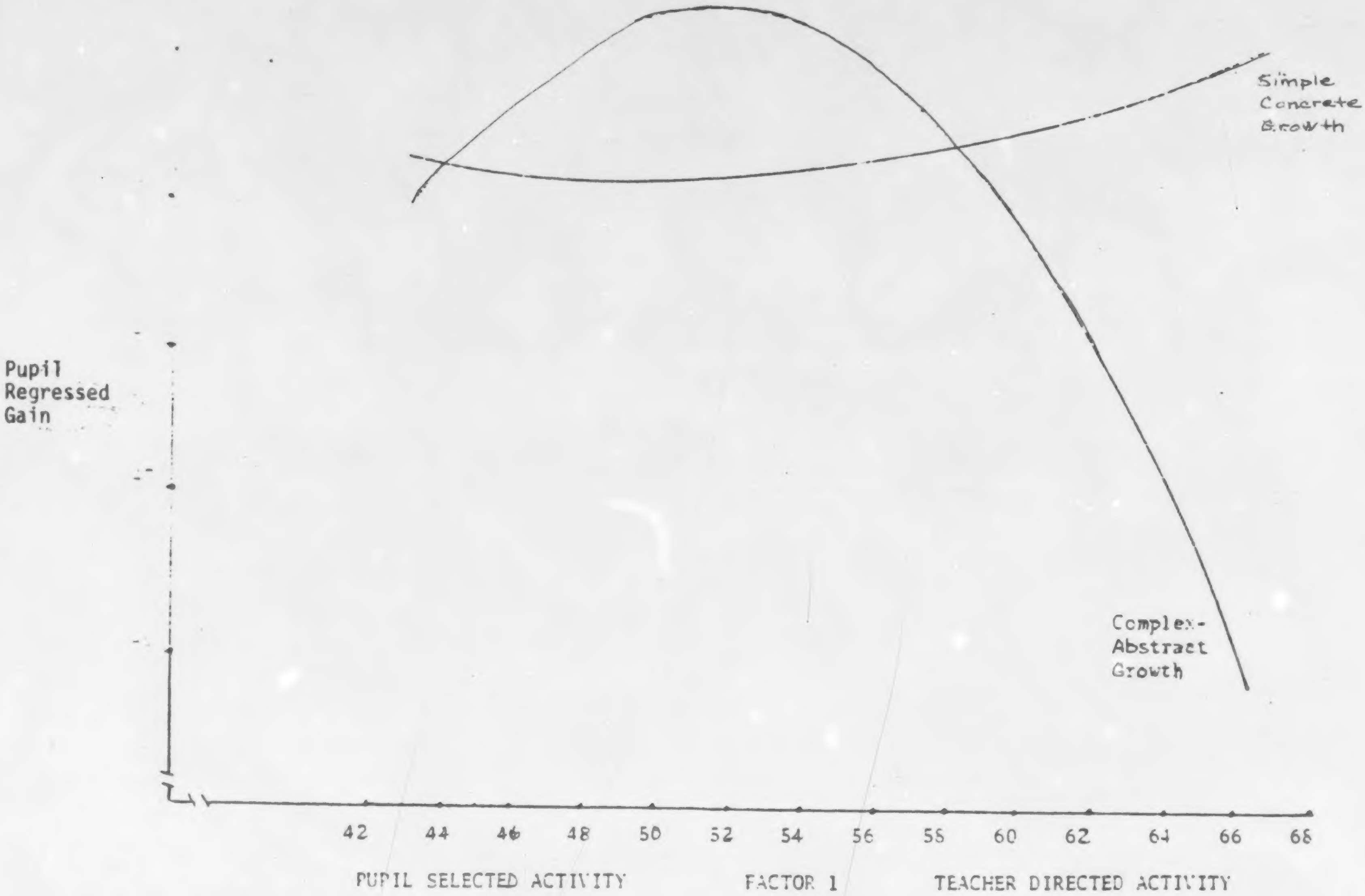


Figure 5. RELATION BETWEEN TEACHER PRACTICES OBSERVATION RECORD FACTOR 1 AND PUPIL GROWTH

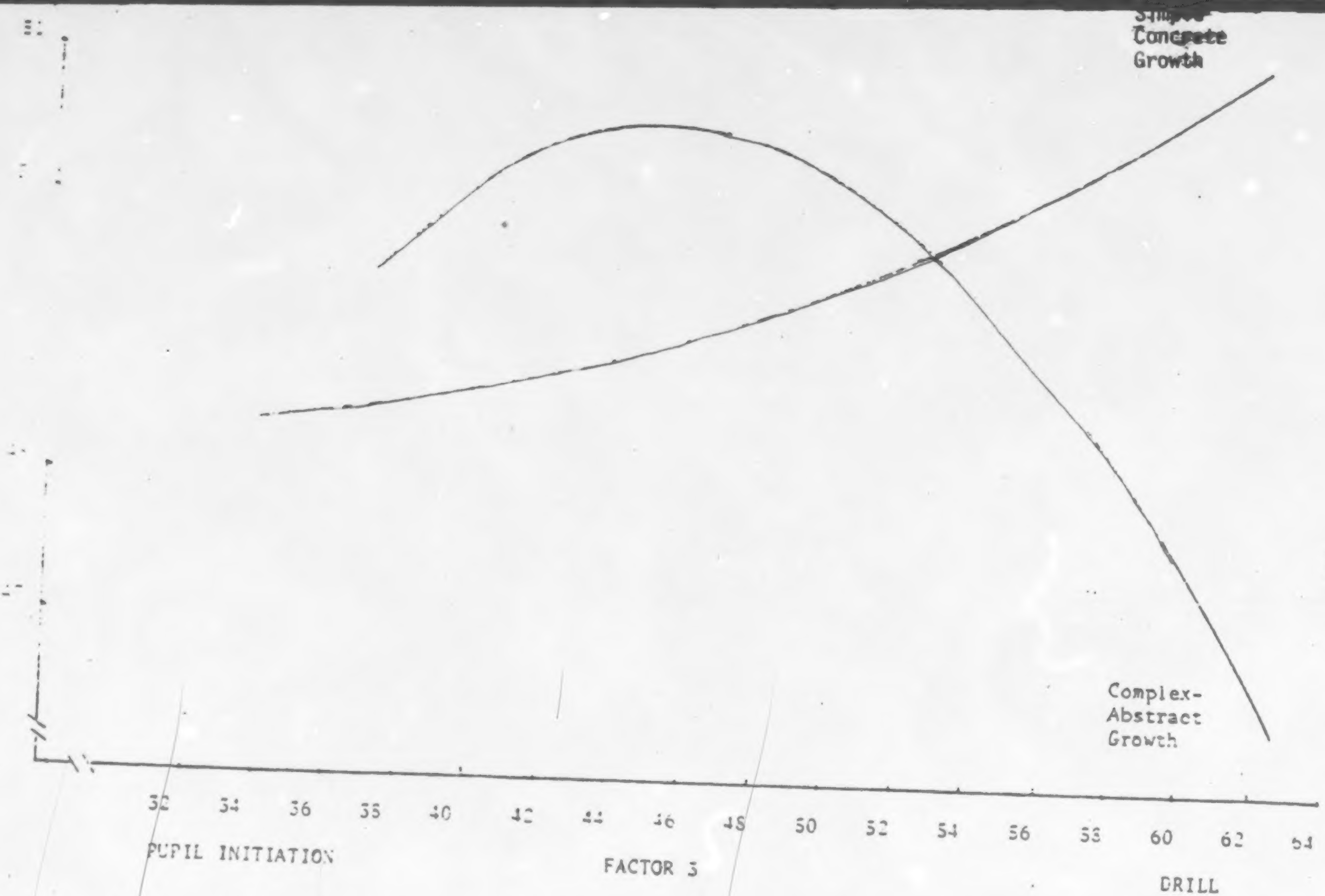
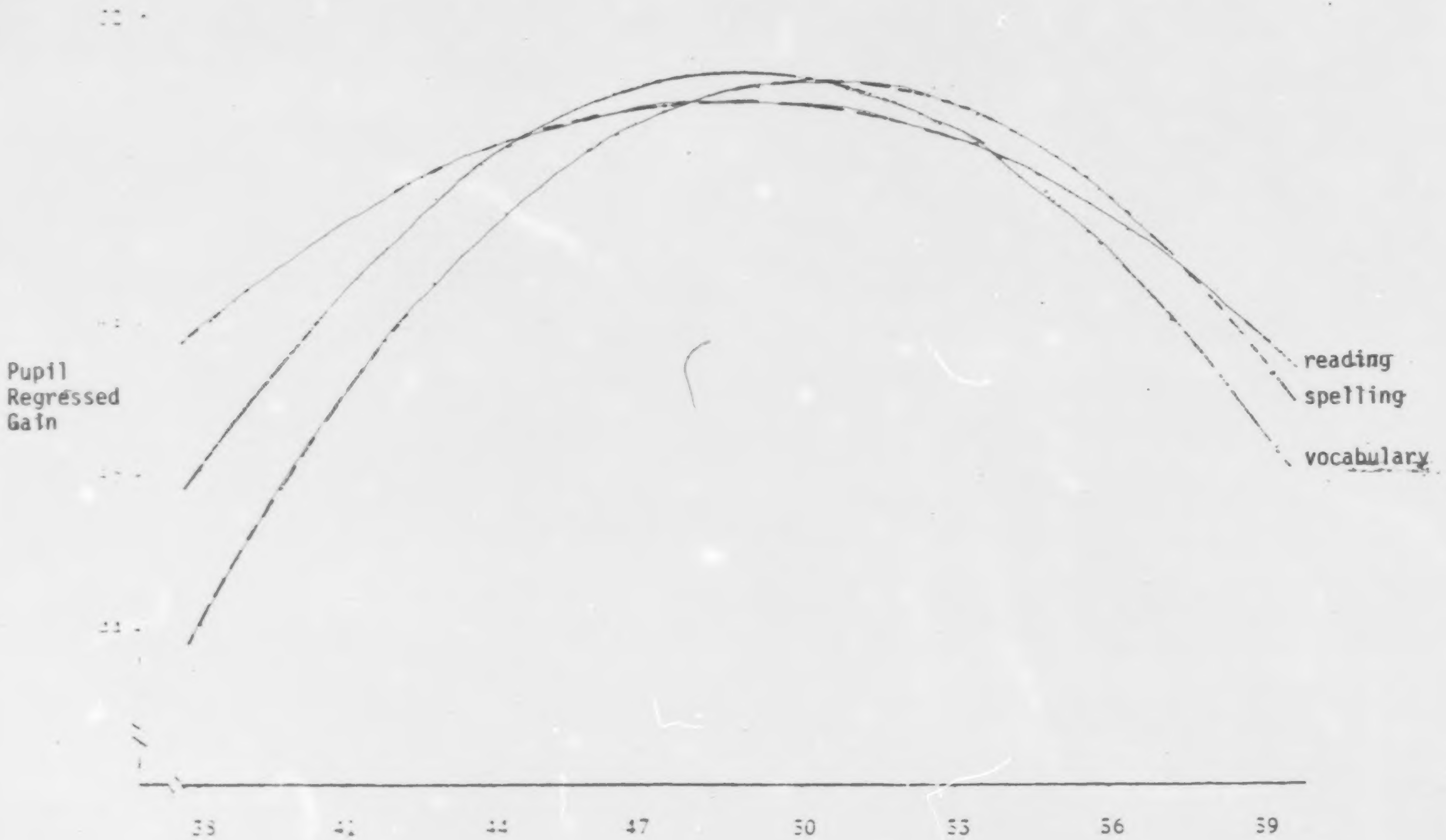


Figure 6. RELATION BETWEEN RECIPROCAL CATEGORY SYSTEM FACTOR 3 AND PUPIL GROWTH

activities in which they are engaged, in contrast to the teacher choosing, directing, monitoring, reinforcing, and evaluating the activities in which pupils are engaged. In Figure 6 (a measure taken from audio tape by coders who had no knowledge of the classroom other than what they heard from earphones), the baseline measure contrasts the amount of classroom time spent in drill or similar activities, which were tightly structured and which gave pupils no freedom, in contrast to interactions in which pupils were free to initiate ideas of their own. The similarity of the curves from the two figures is compelling in indicating that, for complex learning objectives, an intermediate level of both activities was most functional--that is, a degree of teacher assignment and monitoring of learning tasks was useful, but that some degree of freedom for pupils was also important. As in Figure 4, complex learning proceeds best when the learning task has a degree of structure and focus, and yet, within those limits the pupil is free to explore ideas of his own to some degree. Both Figures 5 and 6 agree in indicating that the greatest degree of teacher control is functional for pupil progress in low level objectives (Soar and Soar, 1972).

Figure 7 is taken from a sample of fifth grade north Florida classrooms. It indicates, as in Figure 4, that too much or too little structuring by the teacher is nonfunctional for learning vocabulary or reading, and that a somewhat higher degree of structuring is functional for pupils learning spelling (Soar and Soar, 1973).

Figure 8 indicates that, for a group of first grade north Florida classrooms, the amount of teacher-pupil interaction which occurs at the



Translation

Figure 7. Pupil acheivement gain in relation to teacher-pupil translation

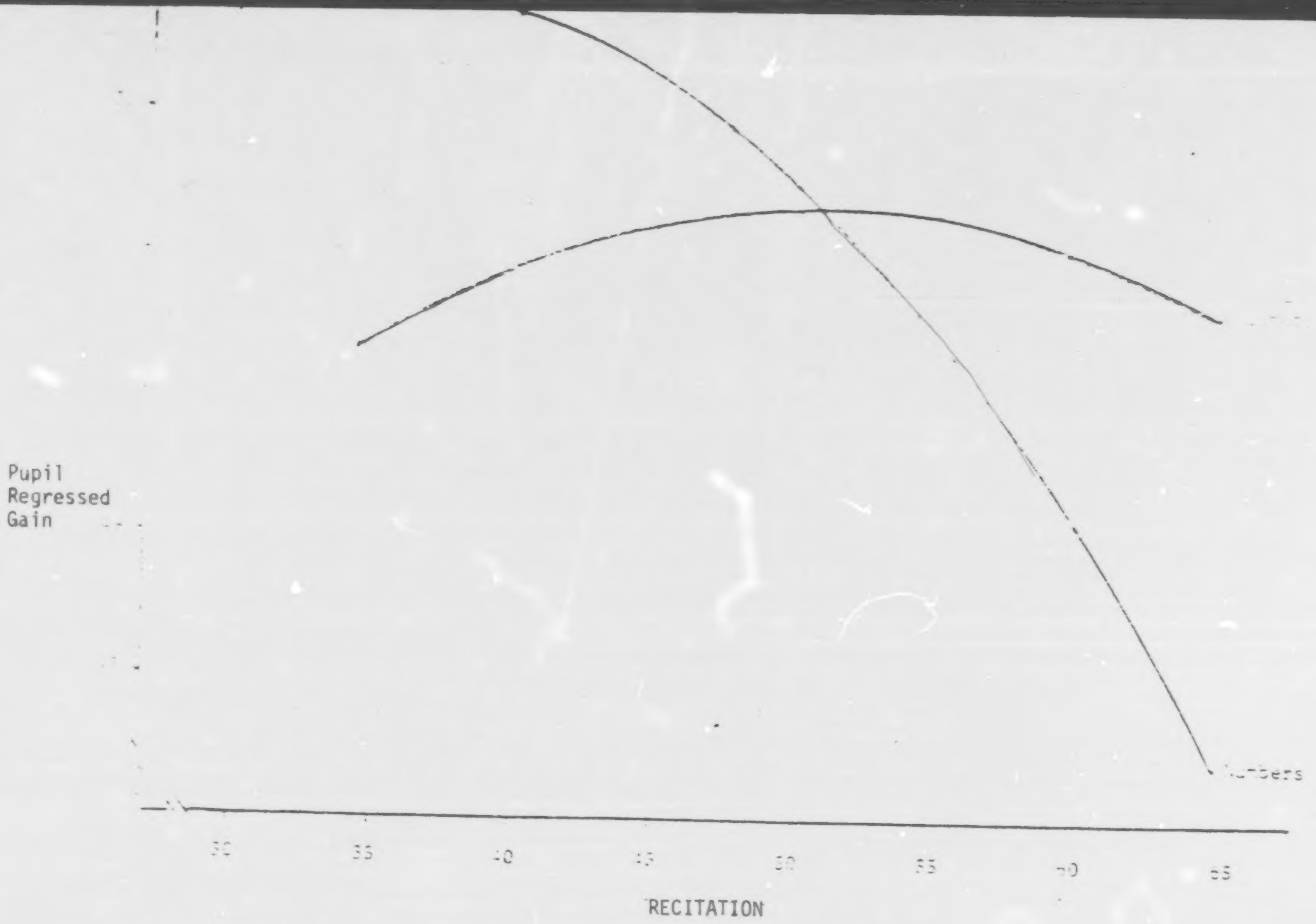


Figure 8. Relation between Recitation and three achievement gain measures

next to the lowest level of Bloom's Taxonomy of the Cognitive Domain is important to two outcome measures which differ in complexity. The word meaning measure was a set of pictures of various objects for which the child was to mark the picture of the proper object when the teacher spoke the word. All of the pictures represented objects, for whom the stimulus word was a noun--that is, the concepts were all concrete. The numbers test, on the other hand, engaged pupils in solving word problems or in comparative concepts such as greater or smaller and more or less. Learning of the low level outcome measure, nouns, was greater in classrooms where more of the interaction was at a low cognitive level, whereas the more complex objective was better learned in classrooms where less of this low level interaction occurred between teacher and pupils (Soar, 1976).

In summary, then, the direct instruction model seems to be a very appropriate description of the teaching style which is best adapted to teaching low cognitive level of simple outcomes to low socioeconomic status, lower grade level children (Rosenshine, 1976), but the extent to which this model is appropriate for other objectives, other pupils, or other grade levels is questionable. The major danger lies in generalizing this model of teaching past its limits. Research to date suggests that, even for lower grade, low SES children, this model of teaching risks handicapping children in learning to think. While learning basic skills is a critical objective--a necessary building block to further education--to teach only in a way which limits extension of those skills to more complex mental operations seems a considerable price to pay, and an unnecessary price, if the complexity of the situation is understood.

Examination of Teaching at the Higher Grades

In the studies which have been reviewed so far, most are from the lower three grades, some are from the intermediate grades, but none are from grade levels higher than that. However, two studies suggest that parallel styles of teaching are effective at higher grade levels. Stallings (1978) collected observational data in junior and senior high schools in classes in which basic reading skills were being taught. In effect he tested whether or not the same kinds of variables, which had related to increased achievement gain for Follow Through children, would also be found to be effective for junior and senior high school pupils. In general, the findings were that the model of direct instruction was effective in producing gain for those pupils.

Brophy and Evertson (1978) have studied teacher behavior in the junior high school as it is related to achievement gain for English and mathematics. In general, they found the same patterns of teaching which had been related to gain in second and third grades to be effective for learning mathematics, but they found very few relationships for learning English. They hypothesize that the reason may be that English, as it is taught, is a sufficiently diverse topic that their achievement measures were not a particularly good fit for the objectives taught. They hypothesize that mathematics, on the other hand, is a much more nearly standardized teaching process, so that it was better measured.

A question remains, however. Is there any experimental evidence that teaching teachers these styles of teaching will make a difference in the learning of their pupils? After all, it is possible that the relationships which have been observed, even though consistent, may themselves be reflections of deeper lying skills that reside in the teacher, and which have not been identified. If this latter possibility is true, as it conceivably could be, then teaching these styles of teaching to teachers who do not do them naturally may not have the same result that these styles have when observed occurring naturally.

Experiments in Increasing Teaching Effectiveness

Both Crawford and Stallings (1978) and Ebmeier and Good (1978) reported results from teaching teachers to use methods of teaching which parallel those identified as effective in the research reviewed here. In the Crawford and Stallings work, the results were in the direction which favored the experimental group, although statistically significant in one school system and not significant in the other. The differences in favor of the experimental groups, however, were large enough to be of practical importance, assuming that they are meaningful. The Ebmeier and Good results also favored the experimental group, although data on the size of the difference were not reported. Their primary focus was on pupils of different characteristics taught by teachers with different teaching styles, some pairings of which they found to be more functional than others, and this is why the overall effect for the experimental treatment was not reported, even though it was a non-chance difference.

Support for the conclusion that objectives at different cognitive levels require different teaching styles also comes from the Crawford and Stallings experiment. Application of procedures similar to those identified as direct instruction increased pupil learning in vocabulary, which they interpreted as an associative, or low cognitive level, objective as it was measured, but did not increase pupil gain in comprehension, which they interpreted as a more complex outcome.

Summary

In summary, it seems clear from these results that aspects of teaching have been identified which do make a difference to the learning of pupils. The style called direct instruction is a relatively straightforward style, one which has been traditional for some teachers in self-contained classrooms, but aspects of it have been clarified and given sharper focus. It seems clear that this style of teaching is functional for teaching basic skills and at lower grade levels and for low socioeconomic status pupils. On the other hand, some evidence suggests less teacher control of the learning task at higher grade levels or for more complex objectives is functional. But even for basic skills, the pattern which has been identified does deviate in some ways from conceptions of teaching which even traditional teachers have held as desirable. Expression of positive affect in the classroom has not been demonstrated to be functional--rather, question of its usefulness has been raised. As reported in the chapter on Instructional Strategies, teaching which focuses on work with individual pupils has been shown to be doubtful or ineffective, if used to any very great degree, both in observational and in experimental studies. In a sense, these two findings are impressive, since these are beliefs which have probably been central to the conceptions of good teaching which are held by practitioners in the field.

Beyond these deviations from expectations, what the research appears to show is that pupils learn basic skills best in a classroom which is subject-matter oriented; in which expectations for pupil achievement are high (although the levels which are expected are attainable by the pupils being taught); and in which the teacher selects and assigns the work which is to be done, monitors its performance in the classroom, and gives feedback to pupils on how well they are doing. Involvement of the pupils in the learning tasks is high. The picture, overall, is of an emotionally neutral, matter-of-fact, task-oriented, no nonsense, teacher-directed learning center.

At the same time, the research does raise questions about the appropriateness of this conception of teaching for all objectives. Of the four studies which have been analyzed asking the question specifically of whether the same teaching behavior is appropriate for objectives at low and high cognitive levels, all four find that teaching for complex objectives is different from that which is best for low level objectives. To integrate those results with those leading to the direct instruction model of teaching seems to indicate that teaching via direct instruction will be highly effective for pupil learning of low cognitive level objectives, but will be destructive for learning at higher level objectives. The conclusion appears to be that once pupils have mastered the most basic of the basic skills, or perhaps even simultaneous with that learning, some part of the classroom day needs to be given over to a teaching style which fosters more complex objectives.

The findings suggest that even for children of low socioeconomic status in the primary grades, if the objective is more complex learning, then it is important that the learning activities not be as tightly structured or controlled by the teacher as is implied in the direct instruction model.

Rather, it is important for the teacher to aid in structuring and giving focus to the task, so that pupils know, at least in a general way, the problem which is to be worked on, but that within those limits, pupils have some freedom to explore ideas or directions of their own, with feedback from the teacher to assist them in maintaining their organization.

The major reason for stressing this is that a simple answer is always appealing, and its qualifications are seldom recognized. The recent working paper on basic skills teaching reviewed by the Florida Education Council is a case in point. In essence, it advocates a number of aspects from the direct instruction model, but does not point out the dangers involved in applying this style of teaching to all pupils and all objectives. While there is no question of the importance of establishing basic skills for all pupils, the danger lies in recommending a teaching style which facilitates these limited objectives for education generally. As one views the increasing complexity of our society and the changes which come increasingly rapidly a comment of Cousins (1978) seems particularly cogent:

> The purpose of learning is to unlock the human mind and to develop it into an organ capable of thought, conceptual thought, analytical thought, sequential thought. Such thought is essential not just for the purpose of making a living, but for placing a proper value on the enjoyment of living. (p. 56)

Recommendations

The preceding comments have identified some of the issues and qualifications which seem important in considering research findings on the nature of the classroom environment. This research has been identified as being associated with greater learning for different pupil groups and different objectives. Those comments have also suggested a set of behavior domains which seem helpful in organizing the findings, and which have been used in presenting them.

More specific behavior, organized by the objectives or pupil groups for which they appear to be effective and supplemented with specifics from particular studies, is presented in Table 3.

The first recommendation for all objectives and all pupils is probably the best supported by research--namely, that the pupils learn more in classrooms where expressions of negative affect, such as of criticism, scolding, or humiliating pupils, occur relatively infrequently. The second of these recommendations, although less strongly supported than the first, is still relatively strong; that is, that pupils learn more where disorder, even movement and socializing, are minimized. Notice, the control is of pupil behavior, not the learning process.

Contrary to educators' beliefs, there is not convincing evidence that the use of positive affect is effective in fostering pupil achievement. Although limited evidence suggested that praise for good work, if initiated by the teacher, and given in private, was effective for low SES pupils learning basic skills (Brophy and Evertson, 1974), other evidence suggests that teacher praise has the effect of fostering dependency and making the teacher the authority rather than fostering the pupils' understanding of processes (Rowe, 1974b). Still another analysis, specifically focused on positive affect expression, found it to be related negatively with a variety of outcomes (Soar and Soar, 1978).

The difference in specific classroom behaviors associated with greater learning for low vs. (middle and) high SES pupils form a coherent pattern which is probably as meaningful as the behaviors themselves. This is the pattern they suggest: The motivation of low SES pupils for learning is

Table 3

Recommendations

Behavior	All Objectives All Pupils	References
Emotional Climate	Minimize Negative Affect[1] Do Not Emphasize Positive Affect[2]	Medley (1977) Soar & Soar (1978)
Pupil Non-task Behavior	Minimize Physical Movement, Socializing and Subgrouping[2]	Medley (1977) Rosenshine (1976) Soar & Soar (1978)
	Organize Smooth, Efficient Transitions[2]	Brophy & Evertson (1975)

Lower Grade Pupils

Behavior	Low SES	High SES	References
Emotional Climate	Patience, Acceptance	Mild Criticism for Poor Work[3]	Brophy (1975)
Management of Learning Tasks			
Task Structuring	High (small step learning directed by T)	Moderate; some P choice[2]	Rosenshine (1976) Soar & Soar (1976)
Assignments	Adapt to Pupil Ability to assure success; verify completion	Provide Challenge and stimulating activities after assignments are completed	Brophy & Evertson (1975)
Homework	Avoid	Assign[3]	Brophy (1975)
Amount of Material "Covered"	Less, in small steps, with more practice	Greater amounts, progressing through the curriculum[3]	Rosenshine (1976) Brophy (1975)

Table 3 (continued)

Behavior	Low SES	High SES	References
Individualization	Special materials for individuals or small groups	Follow prescribed curriculum[3]	Brophy (1975)
P Work-Related Questions (seat work)	Systematically check all P's to assure understanding. Answer questions directly and verify understanding.	Let P's come to T. Encourage P to find answer himself[3]	Brophy (1975)
No P Response in Recitation	"Stay with" P to get a response	Give answer or ask another P[3]	Brophy (1975) Medley (1977)
P Wrong Answer	Right answer or phonics cue in reading	Give answer or feedback on how to solve problem[3]	Brophy (1975)
P Right Answer	Another Question	Another question, discuss or elaborate answer[3]	Medley (1977) Rosenshine (1976)
Discussion	Avoid	Use[3]	Medley (1977)
Question Difficulty	80% Correct Answer	70% Correct Answer[3]	Brophy & Evertson (1975)
Peer Tutoring	Avoid[3]		Brophy (1975)

Cognitive Level of Objectives

Behavior	Low	High	References
Learning Task Assigned By	Teacher	T, with input from P[2]	Rosenshine (1976) Soar & Soar (in press)

Table 3 (continued)

Behavior	Low	High	References
Interaction Directed by	Teacher	T, but with some initiation by P[2]	Rosenshine (1976) Soar & Soar (1972)
Ideas Expressed By P	Accept only those closely related to topic	Some Divergence permitted, within topic[2]	Medley (1977) Soar & Soar (1972)
Interaction at Low Cognitive Legel	High Amounts	Intermediate Amounts[3]	Stallings & Kaskowitz (1974) Soar & Soar (1972) Coker, Lorentz & Coker (1976) Soar & Soar (1978)
Feedback by T	Immediately reinforce answer as right or wrong	Delay response at least three seconds[3]	Rosenshine (1976) Rowe (1974a)
Seatwork	T monitors, available for P question	T not available, P free to choose activity after completing assignment	Rosenshine (1976) Soar & Soar (1973)

Pupil Grade Level

Behavior	Primary	Intermediate	References
T Management of Thinking			
Length of Teacher-Pupil Interaction Cycle	Short	Long (25-30 seconds)[3]	Rosenshine (1976) Soar (1966)
Pupil Initiation	Low	Moderate[3]	Rosenshine (1976) Soar (1966)

Table 3 (continued)

Behavior	Primary	Intermediate	References
Teacher Initiation	High	Moderate[3]	Rosenshine (1976) Soar (1966)
Cognitive Level of Teacher-Pupil Interaction	Low	Intermediate[3]	Rosenshine (1976) Soar & Soar (in press)

[1] Results well established.

[2] Results from several studies, or preponderance from numbers of studies.

[3] Limited support (typically one study), or inferential conclusion.

a basic problem. They come to school apathetic, anxious, and alienated from learning; the teacher's task is first, one of bringing pupils to active involvement in the learning process, and then maintaining it. Effective teachers do this by choosing special materials and by conducting instruction so that pupils experience a high degree of success. Learning takes place in small steps, with a high degree of redundancy so as to provide generous amounts of practice. Questions are easy, so most are answered correctly. If pupils do not answer, or say they do not know, the teacher rephrases the questions, or provides cues or hints, so as to facilitate a correct answer and the experience of success. A right answer is acknowledged as correct or another question signals that the answer was right.

When low SES pupils need help with their work, the effective teacher is likely to give help as soon as possible, on request, and to be sure they understand and can carry on, before leaving them. During seatwork the teacher systematically checks to be sure pupils understand their work and are making progress.

In contrast, high SES pupils are likely to come to school motivated and ready to learn--perhaps even to the point of being overly competitive. Learning the basic skills is not typically a problem, and less repetition and practice are needed. Rather, the teacher's task is to provide variety and stimulating activities to interest pupils after the basic material has been learned. In recitation or discussion, questions are more difficult and less often answered correctly. If pupils do not answer correctly, the teacher is likely to suggest a procedure for finding the answer or refer the question to another pupil. Rather than "staying with" a particular pupil, the teacher maintains the progress of the lesson. A right answer is acknowledged often with another question, or the teacher may elaborate or extend it. When work does not meet standards the teacher feels are reasonable for a pupil, the teacher is likely to express mild criticism. During seatwork, effective teachers let pupils bring questions to them, and often suggest ways pupils may find the answers for themselves, rather than answering directly.

The contrasting patterns seem to reflect that the effective teacher of low SES pupils extends patience and acceptance, sees to it that pupils stay task involved, and chooses material and conducts discussion so as to assure pupil success. The effective teacher of high SES pupils, on the other hand, is critical of work which is not up to the pupil's ability, and conducts learning activities so as to challenge pupils to work to the limits of their abilities. It seems clear that although SES has been used as a measure of schools and pupils, it is probably a surrogate for a complex of influences such as pupil ability, readiness to learn, motivation, and support for learning in the home.

Although a smaller number of studies has focused specifically on differences in teaching related to differences in the complexity or cognitive level of the learning task, these studies show relatively consistent results. They indicate that greatest learning of simple objectives does take place under a high degree of teacher choice and direction of learning tasks (direct instruction) if the pupils are primary age. But even for primary age low SES pupils, more complex learning occurred best when there was a balance between teacher choice and direction, and pupil freedom to select activities and explore ideas. For older pupils, outcomes at various levels grew best with an appropriate balance between pupil freedom and teacher direction, but the balance shifted with the complexity of the outcome. The more complex the objective, the greater the freedom which was optimal; the simpler the objective, the less the freedom which was optimal; but teachers at either extreme had less learning of all objectives in their classrooms. Again, as stated earlier, this control of the choice of conduct of learning tasks should be distinguished from teacher management of behavior, in which relatively little freedom for pupils is associated with greatest achievement gain.

Relatively little research has focused on grade level differences in effective teaching. The modest amount there is suggests that pupils are given greater responsibility in the sense that initiation of both contacts with the teacher and the initiation of ideas in interaction are more common at the intermediate grades. Although specific study of the length of the typical teacher-pupil interaction cycle (from teacher to pupil and pupil response to teacher or the reverse) has not been carried out, so far as we know, in the primary grades, experience suggests that it is not often more than a few seconds. Rowe's (1974a) finding that the average teacher waits only .9 second for a pupil to begin to respond (.7 second if expectations for the pupil are low) suggests that interaction is fast-paced. In contrast, one study (Soar, 1966) found greatest learning for above average SES intermediate grade pupils to be greatest when the average cycle length approximated 25-30 seconds. It seems reasonable that complex thoughts cannot be dealt with in rapid-fire interaction, but that practice of specific skills may be. Finally, as with complex objectives at lower grade levels, there is an implication across several studies (Soar and Soar, in press) that older pupils benefit from greater amounts of teacher-pupil interaction at higher cognitive levels than is true of lower grade pupils.

Finally, if a limited intervention were to be attempted on a trial basis, it seems likely that the most that could be accomplished, with the highest probability of improving schools as places where pupils learn, might be brought about by eliminating classrooms in which disorder is common, or in which teachers are punitive towards pupils. The annual surveys by the Kappan in which discipline is ranked by parents as their greatest concern about schools supports this choice as well. If, in addition to this limited approach, further intervention were considered, modifying teacher management of the conduct of learning activities as discussed here has been studied in sufficient detail to offer considerable hope of benefit to pupils. Again, experimental trials of these findings have produced hopeful results, which are even more encouraging.

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Benson, C. S. et al. Report of the Senate Fact Finding Committee on Revenue and Taxation, State and Local Fiscal Relationships in Public Education in California. Sacramento: Senate of the State of California, 1965.

This study examined the relationship between selected inputs and outputs, and proposed a decision procedure using feedback from achievement scores as a partial basis for the allocation of resources to low-achievement local school districts.

Bowles, S. S. & Levin, H. M. The determinants of scholastic achievements, an appraisal of some recent evidence, The Journal of Human Resources, 1968, 3(1), 3-24.

This paper scrutinizes the data and the statistical analysis on which the Coleman Report findings are based. It is suggested that because of poor measurement of school resources, inadequate control for social background, and inappropriate statistical techniques used in the presence of interdependence among the independent variables, many of the findings of the Coleman Report are not supported.

Burkhead, J., Fox, T. G., & Holland, J. W. Input and output in large-city high schools. Syracuse: University Press, 1967.

This is a systematic examination of the outputs of high school education in Chicago and Atlanta and the resources allocated to this education, to trace the relationships between input and output and to discover the major determinants of school outputs. Socio-economic data, test scores, determinants of dropuouts, determinants of college attendance and funds were among the variables used.

Carlsen, R. (Ed.) Administrators and reading. New York: Harcourt Brace Jovanovich, Inc., 1972.

A series of articles in this text cover several areas. The first section explores the administrative roles and responsibilities essential to effective reading, instructs on issues such as definition and structure of the reading program, discusses leadership roles of administrative personnel, examines organization of staff for instructional services, acquiring and effectively using local, state and federal sources, and involving home and community. Strategies for improving instruction that emphasize measurement, use of varied media and staff development are presented. The importance of the awareness of knowledge of educational research and the willingness to bridge the gap between innovation and practice is stressed.

Chaplan, A. A. & Platoff, J. Preschool child development program (Head Start) in disadvantaged areas of New York City-Summer 1967. New York: Center for Urban Education, 1967.

This program evaluation of the 1967 summer Head Start Program examines data in several areas. It evaluates 720 classrooms which utilized 51 supervisors. A number of assessment methods were used. Conclusions are discussed and recommendations are made in terms of administration and communications as well as other areas.

Chattanooga Public Schools. Title I evaluation report 1973-74. Chattanooga, Tennessee: Author, 1974.

A description and evaluation of 1973-74 programs funded by the Elementary and Secondary Education Act, Title I, for the Chattanooga Public School System in Tennessee, are contained in this document. The main project components are reading and mathematics. The major problem associated with the 1973-74 Title I programs was a result of the implementation of the Federal Court mandate on school desegregation. It caused administrative and logistic problems in the schools. The performance objectives established by the Chattanooga Public School System for the Title I elementary schools in reading, mathematics, self-image, and responsibility provided a basis for evaluation of the Title I programs. The results of the analysis of each performance objective indicated that certain objectives were fully met, certain objectives were partially met, and selected objectives were not met.

Coleman, J.S. et al. Equality of educational opportunity. Washington, D.C.: U.S. Department of Health, Education and Welfare, Office of Education, 1966.

This study concluded that per-pupil expenditures and school facilities show very little relation to student achievement levels, and the effect of a student's peers on his achievement level is more important than any school influence.

Educational Testing Service and RMC Research Corp. A study of compensatory reading programs: Executive summary. Princeton, New Jersey: Educational Testing Service, 1976.

This joint report examined compensatory reading programs. The results show that in schools which reviewed compensatory funds, the students most in need received additional help in overcoming their reading problems. Additionally, these students did not fall progressively behind their peers, and on some reading tests tended to catch up slightly. A limited number of unusually effective programs were identified which had in common a set of planning and management activities.

Educational Policy Research Center. The use of performance criteria to allocate compensatory education funds. Menlo Park, California: Stanford Research Institute, 1974.

This publication reports the results of an effort to assess the consequences of targeting federal compensatory funds toward all elementary students showing low achievement rather than only to those who were first low income and then low achieving. The document deals first with technical issues--the suitability, feasibility, and cost implications of the use of performance criteria. It then considers the fiscal issue of the consequences of resource redistribution from the use of performance criteria. The report's overall conclusion is that serious but not insurmountable political, technical, and cost problems would exist in the creation of the required data base. However, should these problems be solved, the report argues that a potentially appealing combination of income and performance criteria could be created at a 25 percent increase in program cost. Additionally, it reports that by allowing a choice between income/AFDC and performance criteria, the program could be designed to prevent any district from losing monies while at the same time aiding those nonpoverty students who are educationally disadvantaged. (Author/DN)

Eubanks, E. E. & Levine, D. V. Big - city desegregation since Detroit. 1975, Phi Delta Kappan. 56(8).

To effectively improve minority student achievement in metropolitan schools, educational alternatives based on staff development, administrative leadership, increased resources, reorganized school practices, community resources, and new educational enviornments must be developed. (Author/DW)

Flynn, D. L.; Hass, A. E. & Al-Salem, N. Evaluation of the cost effectiveness of alternative compensatory reading programs. Cost-effectiveness analysis, (Vol.3), Bethesda, Maryland: RMC Research Corp., 1976.

Measurements of the effectiveness of reading instruction are combined with cost data described in Volume I in a comparision of the cost effectiveness of elementary school reading programs. The measure of effectiveness used was residual gain score. The analysis suggests that there is no consistent relationship between the cost of a program and its apparent effectiveness as measured by reading achievement tests.

Grotberg, E. H. *Early intervention for the disadvantaged: Does it influence reading achievement?* Atlantic City: paper presented at International Reading Association Conference, 1971.

After reviewing intervention programs, the author found the outstanding programs have in common clearly stated objectives, curricula consistent with objectives, high professional-para-professional ratio, individual instruction and attention, and parent involvement. An exemplary program is Jacksonville, Florida's Learning to Learn.

Horst, D. P. *Analysis of school projects for the development of Project Information Packages (PIPs).* New York: Paper presented at the American Educational Research Association Annual Meetings, 1977.

Six effective compensatory programs were analyzed to determine whether they could be packaged in a manner to encourage and enable their replication at sites where educational needs are not met by the current program. Selection/adoption, start-up operation of the program are examined and analyzed. The major problems in describing the replication mechanism are explored. These concerned the differences between effective projects in the areas of management and instructional features of the projects and the role of the individual teacher.

Jordan, D. C. & Spress, K. H. *Compensatory education in Massachusetts: An evaluation with recommendations.* Boston: School of Education, University of Massachusetts, 1970.

The general objective of this study is to assist in the improvement of compensatory education programs based on evaluations specific enough to permit formulation of concrete recommendations for improvement. Among the findings which prevent compensatory education from efficiently producing significant results of a permanent nature were: the lack of explicit objectives operationally defined which deal with the basic problems of the disadvantaged child; and lack of sound designs for evaluating programs.

Michigan State Department of Education. *Report of the 1974-75 Michigan Cost Effectiveness Study.* Washington, D.C.: Capitol Publications, 1976.

A description of the 1974-75 Michigan Cost-Effectiveness Study and its findings is provided in this study. The present study is restricted to compensatory education reading programs. Its purpose is the development of the analytical techinques reflected in the cost-effectiveness model. A purpose of the study is the investigation of the direction of the relationships between achievement and various identified variables. Although all of the possible analyses of the data are not completed, the development of various path models present a major step in identifying the nature of the significant relationships between various variables and reading achievement. This study focuses upon educational variables which can be changed or controlled by educational systems. Variables such as race, social economic status, level of parental education, etc. which can not be readily controlled or modified by an educational system are not examined.

Melne, A. et. al. Demonstration studies of funds allocation within districts. Washington, D.C.: National Institute of Education, 1977.

This particular study analyzes the results of demonstration projects in 13 school districts that switched to student achievement measures as criteria for allocating Title I funds to schools rather than using the standard poverty-based criteria. While the demonstration districts changed their funds allocation procedures, the National Institute of Education monitored their progress to learn how the changes affect the day-to-day operation of the Title I program. This report presents the results of the first two years of research on the demonstration projects. It analyzes the changes that occurred between the 1975-76 school year, when the districts allocated funds as before, and the 1976-77 school year when new funds allocation criteria were introduced. The report covers three areas where, as a result of the new criteria, changes were likely: 1) the number of schools and students served by Title I, 2) the characteristics of students served by Title I, and 3) the services Title I students receive.

Morgan, V. R. A cost study analysis of measured gains in a reading program utilizing individualization of instruction. Tallahassee: Ph.D dissertation Florida State University, 1974.

The thrust of this dissertation was to discover the cost of gain of reading for students. It was concluded that it cost less to teach better when cost is based on amount of reading gain per dollar expenditure.

Nyitray, M. et. al. Using achievement test scores to allocate Title I Funds. Washington, D.C.: National Institute of Education, 1977.

This particular study focuses in three ways on the implications of using achievement test scores to allocate Title I funds to states and school districts. First, it identifies testing issues to be resolved before achievement data can be used to allocate funds; second, it discusses the procedures and costs associated with obtaining student achievement data to allocate funds to states and school districts; and third, it analyzes likely changes in funding patterns. Based on a review of existing data from national and state testing programs, the report concludes that there is now no adequate source of achievement data to allocate Title I funds among the states or within states to school districts; however, a national testing program to provide such data could be developed.

the reading problems encountered; learning about students reading; selecting, initiating and evaluating a suitable reading program; developing a reading curriculum; and the administrators responsibility for the reading program personnel.

Summers, A. A. & Wolfe, B. L. Which school resources help learning? Efficiency and equity in Philadelphia public schools in Business Review. Philadelphia: Federal Reserve Bank of Philadelphia, 1975.

This study examines the relationship between use of school resources and achievement growth of students. A major finding of the study is that, on the basis of the student anaylzed, school resources can have an important impact upon how much students learn and can help in compensating for the disadvantages of poverty, race, and low ability, when resources are properly targeted. This finding suggests that the educational achievement of Philadelphia school children, in some cases, might be increased without necessarily spending more for school resources. That is redirecting some educational resources is likely to produce productivity gains.

Tallmadge, K. G. An analysis of the relationship between reading and mathematics achievement gains and per-pupil expenditures in California Title I Projects, fiscal year 1972. Palo Alto, California: American Institutes for Research in the Behavioral Sciences, 1973.

The objective of this study was to shed additional light on the cost - benefit once "critical mass" issues which are central to today's compensatory education planning and policy making. The data analysis utilized statistical controls such as the removal of the effects of regular per-pupil expenditures when the impact of supplementary expenditures was assessed. Saturated schools-those with 75 percent or more of the pupils eligible for Title I participation-were found to differ significantly from unsaturated schools with the latter showing greater gains in both reading and math and greater Title I per-pupil expenditures.

Thomas, J. A. The productive school. New York: Wiley, 1971.

This book presents some conceptual basis for improved decision making. It is based on the notion that the school is a complex social system, which is in a continual process of resource interchange with its enviornment. The central concept is productivity, or the realtionship between the outcomes of education and the human and material resources which education consumes. Education is regarded as the result of a process of production. Alternative methods of educational production are presented, as well as, resource allocation being a central responsibility of administrators.

Vilano, F. et. al. Allocation models in compensatory education. New York:

It is estimated that a national testing system to produce state-level estimates of low achievers would cost about $7.2 million over 3 years, while a national testing to allocate funds directly to each school district would cost at least $53 million over three years. The report concludes that a change from poverty to achievement eligibility criteria is likely to significantly affect Title I funding for many states, but would not affect the relative amount received by each of the four census regions.

Shore, R. E. Title I, ESEA, evaluation report FY 1974, Bethel primary school. Anchorage, Alaska: Alaska State Operated Schools, 1974.

This evaluation report for the Diagnostic and Prescriptive Reading Program provides program description and statistics for fiscal year 1974. One of the sections discusses changes in administrative structures.

Stradely, W. E. Administrator's guide to an individualized performance results curriculum. New York: Center for Applied Research in Education, Inc. 1973.

Written by a school principal; this text describes the curriculum with respect to the administrator and: planning stage, time utilization and student performance, results oriented performance, performance oriented staffing, teaching emphasis for performance results, instructional planning for performance monitoring, teacher functioning in performance results programs and contracting and performance results.

State of California Department of Education, Division of Compensatory Education. Guidebook to promising practices in compensatory education and Miller-Unruh reading program schools in California. Sacramento: Department of Education, 1973.

The purpose of this guidebook is to give recognition to some of California's effective schools and, more importantly, to encourage interschool visiting. Emphasis that organization leads to productivity is given.

State of California Department of Education, Division of Compensatory Education. Report on compensatory education, 1974-75(Draft)

All aspects of a compensatory program are discussed in this volume. Management service is profiled.

Strong, R. & Lindquist, D. M. The administrator and the improvement of reading. New York: Appleton-Century-Crofts Inc. 1960.

A book prepared for school administrators to aid them in defining

Paper presented at American Educational Research Association Annual Meeting, 1977.

Allocation models for compensatory education were implemented in the Mesa, Arizona Public Schools based on educational need rather than on the current method of allocation which is based on economic need. Five models were developed and presented. The models incorporated, in addition to strict educational need, demographic characteristics of the individual schools, e.g., mobility, ethnicity. The different allocation models were compared to determine their impact on each of the schools with regard to the number of students to be served. Use of the strict educational model is recommended, and the supporting rationale for its selection given.

Wellish, J. B. et. al. An in-depth Study of Emergency School Aid Act (ESAA) Schools: 1974-1975. Santa Monica: System Development Corp., 1976.

The 1974-75 in-depth study was designated and conducted as an exploratory investigation of program and contextual factors related to achievement. The analysis of school success was guided by a conceptual model that identified four key dimensions of a reading and math program, each of them were found to be significantly related to reading or math gain, independent of student background characteristics. These four dimensions are: (1) organizational climate, which produced a composite index of administrative leadership and a measure of district-level support for new teachers that predicted math gain: (2) parent and community involvement, which produced an index of parent participation in the classroom that predicted both reading and math gain: (3) reading and math program characteristics, which resulted in three indices that predicted achievement gains; the use of behavioral objectives, the provision of adequate instructional practice, and less frequent use of positive reinforcement; and (4) reading and math resource use, which uncovered a relationship between achievement gain and per-pupil costs for remedial specialists.

HOME-SCHOOL RELATIONSHIPS

Baca, R. and R. Maples. Evaluation of ESEA Title I compensatory education program of the Berkeley Unified School District, 1970-1971. Berkeley, California: Berkeley Unified School District, 1971. (ERIC Document No. ED 062487.)

The parent involvement component of this Title I program was comprised of district advisory committees, composed of parent and staff representation from each of the designated schools, and school site committees, primarily concerned with parent participation at each of the designated schools.

Bishop, B.K. The relationship between changes in child social behaviors and reading ability resulting from concurrent program of counseling for mothers and remedial reading for their children. Doctoral dissertation, University of Oregon, 1973. (University Microfilms Order No. 73-20,191.)

This study investigated the effect on reading ability of counseling the mothers of children in a remedial reading program. The results of this study failed to demonstrate that a concurrent program of counseling for mothers and remedial reading for their children produced significantly greater increases in reading ability than the increases produced by the reading program without the counseling.

Coleman, J. Methods and results in the IEA studies of effects of school on learning. Review of Educational Research, 1975, 45(3), 355-386.

An analysis of achievement test data in the areas of literature, reading, and science collected from children aged 10-14 in Chile, England, Finland, Italy, Sweden, and the U.S. Analyses indicate that home variables have at least as much impact as school variables upon pupil achievement and that these findings hold up across nationalities.

Coleman, J. et al. Equality of educational opportunity. Washington: U.S. Government Printing Office, 1966.

Report of the result of a study designed to assess the impact of a number of variables upon pupil achievement. Data were collected on approximately 60,000 students in grades 1, 3, 6, 9, and 12 in

4,000 schools. Findings indicate that achievement variations are strongly related to family backgrounds (social class) and that a number of measures of school quality (e.g. teacher's educational background and experience, per pupil expenditures, number of library books) accounted for a comparatively small amount of difference in achievement.

Corno, L. Effects of parent instruction on teacher structuring and student participation in the third grade: An aptitude treatment interaction approach. Paper presented at annual meeting of the American Educational Research Association, Toronto, Canada, March, 1978.

This study assessed the effects of a parent-assisted Learning Skills Program (LSP) in the context of an experiment on teacher effectiveness. Results indicated that the LSP group students scored significantly higher on achievement tests than non-LSP group students. The achievement test results were over conceptual tests and reading achievement tests.

Devito, P.J. Portioning variance in reading achievement of Rhode Island compensatory education students among background, mental ability, program and parent involvement factors. Doctoral dissertation, Boston College, 1976.

This study investigated the unique and common contributions of four sets of predictor variables (background, mental ability, program, and parental involvement sets) to the variance in reading achievement scores for Title I students enrolled in remedial or corrective reading programs. The commonality analysis yielded mixed results.

Douglas, I.W. The home and school: A study of ability and attainment in the primary school. London: Mac Gibbon and Kee, 1964.

This study of a national sample of 5,000 children in England found that parent interest and involvement with their primary school-aged child accounted for four times as much of the variation in children's scores on intelligence and achievement tests than did measures of school quality, even while statistically controlling for family socioeconomic status.

Florida Department of Education. A descriptive listing of alternative early childhood and elementary education programs and practices in Florida. Tallahassee: Florida Department of Education, 1977.

A comprehensive listing and description of compensatory education programs in Florida during 1977. Compiled by Florida Department of Education. Pupil impact data not reported.

Goodson, B.D. and Hess, R.D. The effects of parent training programs on child performance and parent behavior. (ERIC Document No. ED 136912.)

This paper reviews the efforts of 28 intervention programs designed to train parents to teach school-related skills to their young children. Evaluations were examined for evidence of immediate and long term impact on intelligence test performance and school achievement. All programs produced significant immediate gains. The magnitude of the gains was found to be only modestly related to five variables of program format and content.

Gordon, I. The Florida Parent Education Program. Gainesville, Florida: Institute for Development of Human Resources, 1972.

This paper describes the Florida Parent Education Follow Through program which is designed to impact upon disadvantaged parents and children. The program involves parents as home visitors, as volunteers, as paid paraprofessionals, and as program decision-makers. Inservice training, consulting, and evaluation procedures are described.

Gordon, I. and Breivogel, W.F. Building effective home-school relationships. Boston: Allyn & Bacon, 1976.

This "how-to" book is based on experience and research in implementing the Florida Parent Education Follow Through program. Five strategies for parent involvement are described: involving parent as (1) audience, (2) decision-maker, (3) paid employee, (4) volunteer, and (5) teacher at home. The roles of the home visitor, teacher and administrator are described as well as procedures for inservice training, materials development, and evaluation.

Gordon, I. et al. Continuity between home and school: Aspects of parental involvement in follow through. Paper presented at the fifth biennial meeting of the Southeastern Conference on Human Development, Regional Conference of the Society for Research in Child Development, Atlanta, Georgia, April 1978.

A summary of data collected on the Florida/North Carolina Follow Through program on six types of parent involvement: parent as (1) volunteer, (2) teacher of own child, (3) paraprofessional, (4) decision-maker, (5) learner, and (6) audience. Recommends that data be collected on parent involvement be collected in future evaluative efforts.

Greenfield, C.S. Stimulating parent involvement in remedial reading programs: Strategies and techniques. Paper presented at the 22nd annual meeting of the International Reading Association, Miami Beach, Florida, May 2-6, 1977.

The Racine, Wisconsin Title I compensatory program for the disadvantaged (K - 6) was designed to involve parents in the reading process of their children, both at home and at school. Parents were trained to work with school developed materials in reading, and were provided constant feedback on the progress of the child.

Gutherie, J.T. Follow Through: A compensatory education experiment. The Reading Teacher, 1977, 31(2), 240-245.

A summary of ten years of longitudinal research done on the K - 3 planned variation Project Follow Through research and development program conducted by the U.S. Office of Education. In terms of pupil Metropolitan Achievement Test, Wide Range Achievement Test, PPVT, Raven's Colored Progressive Matrices, and Coppersmith Self-Esteem Inventory scores, three programs had the greatest amount of overall impact: (1) the Direct Instruction program at the University of Oregon, (2) the Parent Education program at the University of Florida, and (3) the Language Development program at the Southwest Educational Development Laboratory. In low income schools, the most effective programs were (1) Direct Instruction, (2) Parent Education, (3) Behavior Analysis at the University of Kansas, and (4) Responsive Education at the Far West Laboratory.

Henning, P. Emergency School Aid Act, Basic Project, 1975-76. Atlanta, Georgia Public Schools. Research and Evaluation Report, 1977, 10 (11).

This program was designed to aid the Atlanta, Georgia School System in the integration process and to aid pupils in overcoming their academic deficiencies due to racial isolation. The program provided individual assistance in reading and mathematics to individual students. The overall goal of the program was that pupils in the remedial education program (grades 1-7) in all participating schools exhibit a significant gain in basic academic skills.

Moore, I. Language and intelligence: A longitudinal study of the first 8 years. Human Development, 1968, 11(1), 1-24.

Report of a 1968 longitudinal study of the positive impact of a home visitation program upon the reading ability and mental ability scores of English children, ages 7 and 8. Home visitation was begun when the children were 2-1/2 years old.

Mosteller, F. and Moynihan, P. (ed.). *On equality of educational opportunity*. New York: Vintage Books, 1972.

A report of a reanalysis of pupil achievement data from several large studies by a group of Harvard professors. Findings generally supported the 1966 Coleman report and found that home variables have as much, if not more, impact upon pupil achievement as do selected school variables.

Perry, A.M. *The relationship of home literary environment and the reading achievement of low socio-economic disabled readers*. Doctoral dissertation, University of Florida, 1978.

This study investigated the relationship of a home literary environment and the reading achievement of low socioeconomic disabled readers. Multivariate analyses of variance were conducted and the findings suggested that low socioeconomic disabled readers can benefit from the home literary environment program provided for the experimental group. It was also suggested that direct parental involvement in student learning experiences can result in improved student achievement.

Rath, S.W. et al. *Follow Through: A resource guide to sponsor models and materials*. Washington: Nero & Associates, Inc., 1976.

A summary and description of twenty planned variation K - 3 Follow Through programs funded by the U.S. Office of Education. Description includes program overview, curriculum, staff development, parent education/involvement, and evaluation procedures.

U.S. Office of Education. *Title I ESEA: Educational programs that work*. Washington: U.S. Government Printing Office, 1978.

A description of 41 ESEA Title I programs in operation during 1977. Parent involvement components are indicated in the programs described. Pupil impact data are summarized.

Wellisch, J. et al. *An in-depth study of Emergency School Aid Act (ESEA) Schools: 1974-75*. Washington: U.S. Government Printing Office, 1976.

This 1974-75 in-depth study was designed and conducted as an exploratory investigation of program and contextual factors related to achievement. The analysis of school success was guided by a conceptual model that identified four key dimensions of a reading or mathematics program. Each of these dimensions was found to be significantly related to reading or mathematics gain, independent of student background characteristics. These four dimensions are (1) organizational climate, (2) parent and community involvement, (3) reading and mathematics program characteristics, and (4) reading and mathematics resource use.

Wise, J.H. Parent participation reading clinic: A research demonstration project. Final report. Washington: U.S. Government Printing Office, 1972.

The Parent Participation Reading Clinic offered an innovative model for providing remedial education assistance to low-income, educationally handicapped children through involvement of the child's parents or older sibling as a "home instructor" in the teaching process. The experimental children who participated in the study showed significant gains over the matched control group on the eight month evaluation.

INSTRUCTIONAL ORGANIZATION AND PROCEDURES

Begle, E.G. Time devoted to instruction and student achievement. Educational Studies in Mathematics. Vol. 4. Holland: Reidel Publishing Company, 1971.

The author recommends further studies on an educational model designed by J.B. Carroll in 1963. He examined the hypothesis that less able students learn as much as more able students if they are provided with enough added instruction.

Broward County School Board. Evaluation of the reading center's remedial program for the 1970-71 school year. Ft. Lauderdale, Florida: Author, 1972.

The study examined the effect of instructional time on pupil achievement. Instructional time was constant for each group but longevity of the groups differed. The results indicated that instructional time is directly related to pupil achievement.

Carroll, J.B. A model for school learning. *Teachers College Record*, 1963, *65*, 723-33.

Carroll introduced a conceptual model of school learning based on the amoung of time a pupil needs to learn a task. He suggested that this would insure success in learning the task. Specific characteristics examined are pupil's aptitude for learning, ability to understand instruction, quality of instruction, and pupil preseverance.

Fisher, C.W., Filby, M.M., Marliave, R., Cahen, L.S., Dishaw, M.M., Moore, J.E., & Berlinear, D.C. *Beginning teacher evaluation study: Technical report V-1*. San Francisco: Far West Laboratory, June, 1978.

The study investigated classroom conditions and teaching acts that foster student learning. It concentrated on Academic Learning Time (ALT) and its effects on student achievement. Five interrelated functions are attributed to student achievement, they are: diagnosis, prescription, presentation, monitoring and feedback. Three sets of variables; teaching processes, student classroom learning behaviors and student achievement are studied and analyzed in their relationships to ALT. Results indicated ALT is a strong conceptual strategy and should be taken into account when dealing with student learning.

Gordon, E.W., & Wilkerson, D.A. Compensatory education for the disadvantaged programs and practices: Preschool through college. New York: College Entrance Examination Board, 1966.

Gordon & Wilkerson reviewed the literature of programs and projects concerned with effective approaches to compensatory education. Findings reveal three areas specifically related to pupil achievement. They are teacher recruitment and training, curriculum innovations and reading, and language development.

Guthrie, J., Samuels, S.J., Martuza, V., Seifert, M., Tyler, S.J., & Edwall, G. A study of the locus and nature of reading programs in the elementary school. Newark, Delaware: International Reading Association, June, 1976.

The author reviewed studies concerning organizational, instructional and program characteristics of reading achievement. Results stated eight variables affecting achievement for program characteristics. Both regular and compensatory programs were studied.

Harris, A., & Serwer, B. The CRAFT Project: Instructional time in reading research. Reading Research Quarterly, 1966, 2, 27-57.

The study compared two approaches in reading: a skills-centered approach which comprised of basal readers plus an intensive phonics program and a language experience approach which comprised of regular LEA materials plus LEA with extensive audio-visual material. Analysis of the data revealed that possibly more important than instructional method was instructional time. The study was expanded to 3 years in order to examine instructional time.

Hawridge, G.D., Tallmadge, G.K., & Larsen, J.K. Foundations for success in educating disadvantaged children. Palo Alto, California: American Institute for Research, 1968.

The author identified characteristics of compensatory education programs most likely to be associated with success and failure of pupil achievement. Programs were evaluated at the preschool, elementary school and secondary school levels. Ninety-one components were identified of the successful and unsuccessful and unsuccessful are clearly summarized by Hawkridge and his associates.

Kiesling, H.J. Input and output in California compensatory educational projects. Santa Monica, California: Rand Corporation, 1971. (ERIC Document Reproduction Service No. ED 059 174)

Kiesling reported findings in the areas of program design, allocation of educational resources and validated the use of input-output research design in projects examining compensatory education. One

interesting variable that was constructed to measure instruction with pupil performance was Individual Equivalent Minutes (IEM). IEM's were counted for the classroom teacher, paraprofessional and the reading specialist. Kiesling obtained significant results related to IEMs.

Kiesling, H.J. Productivity of instructional time by mode of instruction for students at varying levels of reading skill. Reading Research Quarterly, 1977-78, 4, 554-582.

The author examined whether or not there was a correlation between the amount of time that reading instruction is given to a pupil and the pupil's reading ability. He also studied large group instruction and a correlation with the type of instructor (classroom teacher, reading specialist or a paraprofessional). Findings reported indicate that the classroom teacher and small and large group instruction were related to performance in reading.

Marani, S., & Tivvis, J. A successful reading program for the disadvantaged. The Reading Teacher, 24, 39-41, 65.

Marani and Tavvis introduced a reading program to aid incoming seventh grade students improve their reading capabilities. The scheme included three professionals or paraprofessionals and a clearly defined instructional strategy. The results indicated significant gains over groups who did not undergo this instruction.

McDill, E.L., McDill, M.S., & Spreke, J.T. Strategies for success in compensatory education: An appraisal of evaluation research. Baltimore: Johns Hopkins Press, 1969.

The authors compared comprehensive programs and local compensatory programs. The research describes Head Start, Title I and Upward Bound programs in detail. Also, eleven local compensatory programs are discussed. Some of the factors evaluated in the programs are parental involvement, length of exposure and types of treatment, and intensity level of treatment.

Medley, D.M. Teacher competence and teacher effectiveness: A review of process-product research. Washington, D.C.: American Association of Colleges for Teacher Education, 1977.

Medley presents research of teacher effectiveness and competence in high and low socioeconomic status (SES) classrooms. The Process-Product method was used. It was based on teacher behavior and its effects on pupil achievement. The characteristics studied were teacher use of time, organizing for instruction, quality of instruction and individual attention. Specific questioning strategies are presented for high and low SES pupils.

National Institute of Education. *The effects of services on student development*. Washington, D.C.: Author, 1977.

The study is a summary of the findings on the effectiveness of reading and mathematics instruction provided to compensatory education students. Specific strategies were examined in grades one and three. Pullout and mainstream instruction, individualized instruction and the importance of content and intensity of instruction were highlighted as significant findings.

New York State Educational Department. *Which school factors relate to learning?* Albany, New York: Author, 1976.

The report focuses on school factors related to student performance in reading and mathematics. The characteristics examined were median age of teachers in a district, median years of experience, percent of married teachers, percent of male teachers and percent of teachers having graduate credit. These characteristics were examined in three special programs: the Observational Study, the Outlier Study and the Regression Study.

Powell, W.R., Bolduc, E., & Wenzel, E. *Project to improve education in the basic skills: Teacher competencies and indicators for learning.* (Technical Report No. 3). Tallahassee, Florida: Department of Education, 1977.

The study identified specific school setting variables and specific teacher competencies related to pupil achievement in the basic skills. The basic skills included reading, language arts and mathematics. Competency indicators were defined as cognitive-based criteria and performance-based criteria. The behaviors examined were diagnosis and prescription, organization and management, instruction, growth patterns, and evaluation.

Rim, E., & Coller, A.R. *In search of nonlinear process-product functions in existing schooling effects data: A reanalysis of the first grade reading and mathematics data from the Stallings and Kaskowitz Follow Through study*. Philadelphia, Pa.: Research for Better Schools, Inc., 1978.

The reanalysis is an attempt to confirm the view that the relationships between certain classroom characteristics and student achievement are curvilinear. The characteristics examined were monitoring, teacher questioning, teaching activities and attentiveness. Their findings support the conclusion of the primary analysis in reading achievement.

Spartz, J., Valdes, A.L., McCormick, W.J., Myers, J., & Geppert, W.J. *Delaware educational Accountability System case studies: Elementary schools grades 1-4 (A report of results)*. Dover, Delaware: The Department of Public Instruction, September, 1977.

The authors examined the reason why first grade pupils entering their schools are above the national norms, yet by fourth grade these pupils fall below the national norms. The study was divided by schools achieving above expectancy (SAE) and schools achieving below expectancy (SBE) in reading and mathematics. Factors focused upon in the classroom were emphasis of material, articulations and comprehensiveness. Two functional levels considered within schools were management and instruction. The findings indicated a variety of differences between SAE and SBE in reading and mathematics.

Stallings, J.A. Teaching basic reading skills in secondary schools. Unpublished paper presented at the annual meeting of the American Educational Research Association, Toronto, Canada, March, 1978.

Stallings identified teaching processes that are efficient in assisting secondary students learn to read. These processes, once identified, were examined to see if they were relevant in producing test score gain. Some of the processes identified as relevant were: positive feedback, probing questions to students who do not know the answer, specific instructions to total group and encouraging positive behavior.

Margo, N.J. Those elusive components that contribute to the success of compensatory education projects. Unpublished paper presented at the Annual Meeting of the American Educational Research Association, New York, April, 1977.

Wargo reviewed six studies on compensatory education programs between 1965 and 1972. He identified six components of success common to all six studies. They were: objectives and planning, teacher training, relevant instruction, high intensity of training and instruction, parental involvement and individualized or small group instruction.

Wiley, D., & Harnischfeger, A. Explosion of a myth: Quantity of schooling and exposure to instruction, major education vehicles. *Educational Researcher*, 1974, *3*, 7-12.

The author investigated historical research concerning models of quantity and quality of schooling correlated with pupil achievement. Wiley expanded the model to include four main concepts and four factors which influence the main concepts. The author suggested that consideration be given to policy and community implications.

CLASSROOM ENVIRONMENT

Bennett, N. *Teaching styles and pupil progress.* Cambridge: Harvard University Press, 1976.

A recent, but already classic, comparision of the relative effectiveness of Brisish infant schools with traditional education in England, showing that, on average, British infant school pupils learn less academically, with little evidence of compensating gain in other areas.

Brophy, J.E. Teacher behaviors related to learning by low vs. high socioeconomic status early elementary students. Paper presented at American Educational Research Association Meeting, Washington, D.C., April 1975.

This paper is a summary and statement of implications for teaching drawn from the results of the Brophy and Evertson (1974) findings. Differences in teaching style which are functional for high and low socioeconomic status pupils are clearly contrasted.

Brophy, J.E., & Evertson, C.M. *The Texas teacher effectiveness project: Presentation of non-linear relationships and summary discussion,* Report No. 74-6. Austin: Research and Development Center, University of Texas, 1974.

A report of findings of both linear and non-linear relationships, between several hundred observation times and a series of measures of pupil gain for two years of data collection in Title I and non Title I second and third grades.

Brophy, J.E. & Evertson, C.M. *Teacher behavior and student learning in second and third grades.* Report No. 75-4. Austin: Research and Development Center for Teacher Education, University of Texas, 1975.

A paper summarizing and interpreting major findings from the 1974 study which characterized effective teaching for all pupils at second and third grade levels, but with some attention given to socioeconomic status differences.

Brophy, J.E., & Evertson, C.M. Process-outcome relationships in the Texas junior high school study: Low inference coding of specific behaviors. Paper presented at American Educational Research Association Meeting, Toronto, Canada, March 1978.

This is a report of a study at the junior high level, which parallels work by the same authors in the second and third grades. Classroom behavior and achievement data were collected in 39 English classrooms and 29 math classrooms and relations between teacher behavior and pupil achievement were studied in each data set. The findings in math classrooms in general parallel those found at second and third grades but few relationships were found in the English classrooms. The authors suggest that the difference may be a consequence of English teaching having quite diverse objectives so that outcome measures may not have fitted classroom objectives well. On the otherhand, math was seen as likely to be more consistent in the objectives sought from classroom to classroom.

Cousins, N. Outlooks--the taxpayers' revolt: Act II. Saturday Review, Sept. 16, 1978, 5, 24, 56.

An editor of Saturday Review comments on the importance of going beyond teaching skills in American education, and the need for citizens who can think, and use the information, as well as having the skills to acquire it.

Coker, H., Lorentz, J.L., & Coker, J. Interim report on Carroll County CBTC project, fall, 1975. Atlanta: Georgia State Department of Education, 1976.

An interim report of a project sponsored by the Georgia Department of Education in which measures of competencies which have been identified by teachers as generic have been related to measures of pupil gain. Teacher delivered competencies more often related negatively than positively with pupil achievement gain.

Crawford, J., & Stallings, J. Experimental effects of inservice teacher training derived from process-product correlations in the primary grades. In N.L. Gage (Ed.), An experiment on teacher effectiveness and parent-assisted instruction in the third grade. Stanford, Calif.: School of Education, Stanford University, 1978.

This paper reports results from an experiment in which findings from correlational studies of teaching effectiveness have been the basis for a training program for teachers teaching basic skills. Pupil gain increased significantly in one school system but not in the other, although gains of practical significance occurred in both.

Dunkin, M.J. & Biddle, B.J. The study of teaching. New York: Holt, Rinehart, & Winston, Inc., 1974.

This is one of the more extensive reviews (book length) of studies relating teacher characteristics, teacher behavior, and to pupil outcome. It is less useful than the Medley (1977) review, however, since the results have not been classified in the way Medley did. This review typically concludes that a given behavior either is or is not related to a desired pupil outcome, whereas the Medley review in many cases shows that the classroom behavior relates consistently for each pupil group (SES grade level) but differently from group to group.

Ebmeier, H., & Good, T.L. An investigation of the interactive effects among student types, teacher types, and instructional types on the mathematics achievement of fourth grade students. Columbia, Mo.: University of Missouri, 1978.

This is an unpublished paper reporting complex relationships between pupil characteristics and classroom behaviors as they jointly affect pupil gain. Pupils are grouped into several clusters on the basis of their characteristics, classroom behaviors are also grouped into several clusters, and the amount of pupil growth occurring in these combinations of clusters is reported. While the results are extremely complex, some agreement can be found between them and the other studies reviewed.

Florida Education Council. Improving achievement in basic skills (A working report). Tallahassee, Fla.: Florida Department of Education, 1978.

A working paper advocating a very closely teacher controlled style of teaching ("Direct Instruction") for teaching basic skills in Florida. The report could easily be misread as a recommendation for the same style of teaching for all students in Florida schools. The importance of the council in policy making in Florida education makes any statement of theirs important.

Gage, N.L. An experiment on teacher effectiveness and parent-assisted instruction in the third grade: Background and rationale. In N.L. Gage (Ed.), An experiment on teacher effectiveness and parent-assisted instruction in the third grade. Standord, Calif.: School of Education, Standord University, 1978.

The comments cited are an introduction to a monograph length report in which the Crawford and Stallings results appear. An identification of several recent large scale projects as centrally important in the teacher effectiveness literature appears, as well as the rationale for the series of studies in the monograph.

Good, T.L., & Grouws, D.A. Process-product relationship in fourth grade mathematics classrooms. (NIE grant NEG-00-3-0123). Columbia: University of Missouri, October 1975.

A project report presenting relationships between classroom organization and behavior, and pupil gain in mathematics, for middle class fourth grade pupils in a midwest suburb.

Inman, W.C. Classroom Practices and Basic Skills: Kindergarten and Third Grade. Raleigh, N.C.: North Carolina State Department of Public Instruction, 1977.

This is a report of one of the more extensive and carefully done studies of "open" education. Data were collected from a truly random sample of sites in the state, questionnaire data were validated in a subsample by direct observation, and questionnaire data were related to achievement data collected by the state. The study reports decreased achievement for pupils in open classrooms, with little compensating gain for other objectives.

Lorentz, J.L. & Coker, H. A cross-validation of low-inference measures of classroom behavior. Paper presented at Georgia Educational Research Association, Atlanta, January 1978.

This paper reports a second year of data from the project supported by the Georgia Department of Education cited earlier under Coker, Lorentz and Coker. While variability of results from sample to sample occurred as expected, they still do not encourage the use of teacher-derived measures of competencies.

McDonald, J.J., & Elias, P. *The effects of teaching performance on pupil learning: Beginning teacher evaluation stydy, Phase II, Final Report*. Volume I Princeton, N.J.: Educational Testing Service, 1976.

This is a report of the second phase of a continuing series of studies sponsored jointly by the National Institute of Education and the California Commission for Teacher Preparation and Licensing. This phase was intended to inform the commission of the relative influence of teacher characteristics, classroom organization and behavior, and pupil characteristics in determining pupil learning. Relationships among these variables for 41 second grade classrooms and 54 fifth grade classrooms varying in socioeconomic status are reported, however, differences in teaching style which are effective for the different socioeconomic statuses are not reported.

Medley, D.M. *Teacher competence and teacher effectiveness: A review of process-product research.* Washington, D.C.: American Association of Colleges for Teacher Education, 1977.

This review is one of the two from which this summary and intergration have drawn most heavily. The Medley review is noteworthy in several respects: it set stringent quality standards for studies to be reviewed, so that weak studies are not given the same credibility as stronger, large scale ones; and the results are classified by pupil socioeconomic status, grade level, and the nature and complexity of the outcome measure. This classification of results makes clear that results which have appeared to be inconsistent in other studies instead differ consistently depending on these classifications. Perhaps the most noteworthy finding was that when the same classroom behavior was related to gain for both high and low socioeconomic status pupils, in more than 60% of the instances the direction of the relationship reversed from one pupil group to the other. This has been a major source of inconsistency in other reviews.

Medley, D.M., & Mitzel, H.E. Measuring classroom behavior by systematic observation. In N.L. Gage (Ed.), *Handbook of research on teaching*. Chicago: Rand McNally & Co., 1963.

This is the chapter summarizing substantive findings and making methodological suggestions for classroom observation in the first of Handbook on Research on Teaching which the American Educational Research Association has sponsered. Although this chapter in a sense is a classic now, it is an obligatory starting point for this literature.

Mitzel, H.E. Teacher effectiveness. *Encyclopedia education res.* (3rd ed.). New York: Macmillan, 1960.

This article is another of the classics in the early literature of classroom observation. In it, the author developed the classifications of teacher effects measures which have been widely used in reviews since then; Presage measures, teacher characteristics such as age, marital status, degrees held, test scores, etc; process measures, which have to do with the interactions between teacher and pupils in the classroom; and product measures which have to do with measured changes in pupils resulting from experience with the teacher. On the basis of this organizational scheme, the intergration and summary presented here describes process-product relationships.

Rim, E.D. & Coller, A.R., In search of nonlinear process-product functions in existing schooling effects data: I A reanalysis of the first grade reading and mathematics data from the Stallings and Kaskowitz Follow Through study. Philadelphia: Research for Better Schools, 1978.

This study, sponsered by the National Institute of Education carried out tests on nonlinear relationships between numbers of the process measures from the Stallings and Kaskowitz (1974) study and measures of pupil outcome. In numbers of cases, nonlinear relationships were found which altered the conclusions drawn from the original study.

Rosenshine, B. Classroom instruction. In N.L. Gage (Ed.), The psychology of teaching methods. Chicago: *National Society for the Study of Education,* 1976, 335-371.

This is the second of the two reviews (the Medley review being the other) which have been utilized most heavily in this intergration. Rosenshine has drawn most heavily on the large scale studies identified by Gage (1978), although many others are cited, and has identified a pattern of classroom teaching which is effective for teaching basic skills for lower grade disadvantaged pupils, which he calls "Direct Instruction". It is a pattern which differs in numbers of ways from practitioners' beliefs about the nature of effective teaching. There is agreement here with the Coker and others findings that teacher competencies derived from the beliefs of practitioners are typically invalid, as well as the Medely, finding that patterns of teacher effectiveness are quite different from pupils differing in socioeconomic status.

Rosenshine, B.V. & Berliner, D.C. Academic engaged time. *British Journal* of Teacher Education, 1978, *4*, 3-16.

This article is a further amplification and discussion of the implications of the concept of Direct Instruction identified in the Rosenshine (1976) review.

Rosenshine, B., & Furst, N. The use of direct observation to study teaching. In R.M.W. Travers (Ed.), *Second handbook of research on teaching.* Chicago: Rand McNally, 1973.

This is the chapter on observation in the *Second Handbook of Research on Teaching* sponsored by the American Educational Research Association. It summarizes findings with respect to both methodology and substance. The chapter was written just before the results from the major, large scale studies identified by Gage (1978) became available, however, so that later reviews are more important so far as substantive findings are concerned.

Rowe, M.B. Wait-time and rewards as instructional variable, their influence on language, logic, and fate control: Part I-wait-time. *Journal of Research in Science Teaching,* 1974a, *11*, 81-94.

This article is an integration of numbers of studies of science teaching in the primary grades. The finding of principal concern for this review was that the typical teacher waits .7 to .9 seconds after asking a question or after the end of a pupil response before intervening; however, if these "wait-times" are extended to approximately three seconds, the nature of pupil participation changes dramatically in constructive ways.

Rowe, M.B. Relation of wait-time and rewards to the development of language, logic, and fate control: Part II-rewards. *Journal of Research in Science Teaching,* 1974b, *11*,(4), 291-308.

The second in this two-part series reports results from rewards such as teacher praise, with the finding that it promotes pupil conformity and dependency and changes classroom interaction into a "game" which the object is the "quick success" of a bit of praise from the teacher.

Ruff, F.K. Instructional variables and student achievement in reading and mathematics: A synthesis of recent process-product research. Philadelphia: Research for Better Schools, 1978.

This is a review and intergration of reviews, sponsored by the National Institute of Education. The number of summary dimensions into which the results are classified and intergrated is smaller than that of the Medley review, but larger than that of this intergration, although elements of it will be found both in this chapter and in the chapter on instructional strategies.

Silverman, C. *Crisis in the classroom: The remaking of American education.* New York: Random House, 1970.

This book employs criticism of classrooms which were extreme in their "mindless" concern for today's subject-matter assignment as a basis for advocating the remaking of education to the other exterme, "open" classrooms.

Soar, R.S. An intergrative approach to classroom learning. (NIMH project numbers 5-R11 MH 01096 and 7-R11 MN 02045). Philadelphia: Temple University, 1966. (ERIC Document Reporduction Service No. ED 033 749).

A report of findings from the first project in a series by the investigator and collaborator, which have used sufficiently similar mearsuing instruments that results could be more easily intergrated across projects than has often been true. Fifty seven classrooms, grades three through six, were studied, which appeared to cross socioeconomic status levels although with the upper levels over represented. Objective measures of SES were not taken, nor were results analyzed by socioeconomic status.

Soar, R.S. Optimum teacher pupil interaction for pupil growth. Educational Leadership Research Supplement, 1968, 1, 275-280.

Analysis of nonlinear relationships between teacher behavior and pupil gain were reported from the Soar (1966) study.

Soar, R.S. Follow Through classroom process measurement and pupil growth (1970-71) final report. Gainesville, Florida: Institute for Development of Human Resources, University of Florida, 1973. (ERIC Doucment Reporduction Service No. ED 106 297).

Results from 289 classrooms, kindergarten through second grade, are reported from Project Follow Through. This is one of the studies identified by Gage (1978) as the "capstone" of correlational classroom effectiveness research. Since the study was carried out in Follow Through, the pupil is primarily low socioeconomic status.

Soar, R.S. Group learning enviornments for the early school years. In M.L. Hanes, I.J. Gordon, & W. F. Breivogel (Eds.), Update: The first ten years of life. Gainesville, Fla.: Division of Continuing Education, University of Florida, 1976.

Nonlinear relations between classroom behaviors that limit pupil freedom of choice in the selection and conduct of learning tasks are gathered and reported from four data sets.

Soar, R.S. & Soar, R.M. An empirical analysis of selected Follow Through programs: An example of process approach to evaluation. In I.J. Gordon (Ed.), Early childhood education. Chicago: National Society for the Study of Education. 1972.

This chapter reports results of the first year of authors' work in Follow Through. The extent to which different innovative programs differed in classroom behavior is presented, as are linear and nonlinear relations between classroom behavior and pupil growth. The pupils are primarily low SES.

Soar, R.S. & Soar, R.M. An attempt to identify measures of teacher effectiveness from four studies. Journal of Teacher Education, Fall 1976, 28(3), 261-267.

The article is a summary of principal emphasizing SES treads of findings across four samples.

Soar R.S. & Soar, R.M. Setting variables, classroom interaction, and multiple pupil outcomes, Gainesville, Fla.: Institute for Development of Human Resources, University of Florida, 1978.

This project is a reanalysis of the data reported in Soar and Soar (1973). Relationships were analyzed within classrooms as well as between classrooms, as is typically done, and differences in optimal teaching behavior at different grade levels were examined.

Soar R.S. & Soar, R.M. Emotional climate and teacher management: A paradigm and some results. In H.J. Walberg & P.L. Peterson (Eds.), Conceptions of teaching. National Society for the Study of Educatio and McCutchan Publishing Corp., in press.

The results of the previous studies are intergrated using the paradigm, a portion of which is used in this review. Evidence supporting the paradigm is cited.

Solomon D., & Kendall, A.J. Final report individual characteristics and children's performance in varied educational settings. Spencer Foundation Project. Rockville, Md.: Montgomery County Public Schools, 1976.

This project parallels the Ebmeier and Good project in that both pupil characteristics and pupil behaviors in the classroom are used as bases for creating clusters, after which average pupil achievement for pupils who belong to a characteristics cluster are examined for the classroom behavior cluster. Again, although general support is present here for principals developed in other studies, the results are sufficiently complex as to be hard to deal with in detail.

Stallings, J. Implementation and child effects of teaching practices in Follow Through classrooms. Monographs of the Society for Research in Child Development, 1975, 40,(7 and 8).

This monograph summarizes the major findings from the Stallings and Kaskowitz (1974) Follow Through Project-one of those identified by Gage (1978) as among the culminating large-scale studies. Since the study was done in Project Follow Through the pupils are primarily disadvantaged.

Stallings, J.A. Teaching basic reading skills in secondary schools. Paper presented at American Educational Research Association Meeting, Toronto, Canada, March 1978.

This paper reports results from an observational study of teaching basic skills in secondary schools, with the finding that relationships between teacher behavior and pupil learning parallel those which have emerged from the more numerous studies done at the primary grade level.

Stallings, J.A. & Kaskowitz, D.H. Follow Through classroom observation evaluation. Contract OEC-0-8522480-4633 (100) from Office of Education, Dept. of Health, Education & Welfare to Stanford Research Institute, Menlo Park, California. 1974.

This is one of the major studies cited by Gage (1978) as among the culminating studies in observational research on classroom effectiveness. Although detailed data are presented in this report, probably the Stallings (1975) monograph is an easier source to follow, and presents implications for classroom teaching clearly.

Walberg, H.J. & Thomas, S.C. Open education: An operational definition and validation in Great Britain and United States. American Educational Research Journal, 1972, 9, 197-208.

This article presents a questionnaire which was developed to discriminate open classroom practices from more traditional ones. The questionnaire was basic to the Inman (1977) study, but also provides a large number of items of behavior which have been shown to discriminate between open and traditional education. In a real sense, it is an operational definition of the ways in which those two styles of teaching differ.

APPENDIX A

Site Visitations

Allen Junior High School
Greensboro, N.C.

General Description of the Program

Allen Junior High School's reading program is designed for seventh, eighth, and ninth grade students. The goal is for each student to make a year's growth in a year's time. During the 1977-78 year, 89 out of 90 students met that goal.

The philosophy of the program is that students should be diagnosed in order to determine individual needs. Through the assessment of strengths and weaknesses, an instructor is more aware of the uniqueness of each student. Therefore, the reading program is based on the philosophy that each student has value.

To qualify for the remedial reading program, a student must (a) be able to show a growth of one year; (b) score two or more years below reading expectancy on the California Achievement Test; (c) take the Prescriptive Reading Inventory in order for the teacher to gain knowledge of each student's strengths and weaknesses; and (d) must complete various informal reading inventories and surveys in order for the teacher to collect information on each student's strengths and weaknesses in reading skills, interests, and personality traits.

Parent Involvement

There is no parent involvement component program.

Administration and Organization

1. Program evaluation. The administrator said that his school had not attempted to evaluate its compensatory education program.

2. Community involvement in school policies. The administrator responsed that a standing lay advisory committee is used in forming school policies.

3. Rules and regulations. The administrator said that, along with his participation, a faculty and student council determines rules and regulations concerning compensatory education.

4. Community involvement in changing the curriculum. The community is used for changing the school curriculum through occasional P.T.A. study groups.

5. Community involvement in planning. The administration indicated that it utilizes the community in pre-planning or regular faculty meetings by having them help to plan the yearly calendar, field trips, or related activities.

6. Teacher opposition. The administrator responded that if, in private conference, a teacher opposed his ideas or judgments about compensatory education instruction methods, he would help him feel free to do this and they would seek a better solution together.

7. Harmful teacher work. The administrator's method of dealing with a teacher whose work he feels to be harmful to the program was not found in any of the choices given. He attempts to eliminate the problems by holding conferences with the teacher and trying a new approach. If the

problem continues, the conferences are made a part of the teacher's evaluation.

8. Pupil achievement standards. Pupil achievement standards are established through closely supervised classroom teaching. The administrator said that he feels that this answer is not really appropriate. He establishes guidelines which are responsible and are monitored.

9. Work with teachers to change course offerings. In bringing about changes in course offerings or content, an attempt is made to sell the staff on the need to improve the program. Released time for visitations to other classes and other projects that will lead to program improvement is provided. There is also close supervision of classroom teaching.

10. Teacher suggestions for improving the program. The administrator suggests that his teachers take all suggestions for improving the compensatory education program before a designated faculty committee.

Characteristics of Administrators

1. Utilization of opinions of others. The principal consistently seeks and considers the opinions of others.

2. Democratic administration procedures. In the attainment of democratic ends, the principal uses any expedient method available to attain a predetermined end.

3. Experimental attitudes. The principal has a favorable attitude toward experimentation. He tends to try out new ideas after careful study and follow through on the basis of the results of experimentation.

4. Interest others in examining ideas. The principal stimulates people to seek solutions through critical analysis of ideas.

5. Cooperation with non-educational groups. In reference to cooperation with non-educational groups working for community betterment, the principal is aware of and actively concerned with the desires and interests of community groups, agencies, and organizations.

6. Implementation of new policies. The principal moves surely and judiciously in effecting new policies.

Instructional Characteristics

1. Class size. The total size of the class is less than 20.

2. Allocated vs. engaged time in reading. There is a high relationship between the time in which the students are actively engaged in reading and the time allocated.

3. Cognitive level of teacher questions. Questions asked by the teacher are designed to elicit knowledge of facts and information.

4. Time spent in reading. The students are actively engaged in reading 30 minutes or more per day.

5. Time spent in mathematics. The students are actively engaged in mathematics 30 minutes or more per day.

6. Organization of reading groups. The reading groups are composed of three to six students.

7. Teacher-directed learning activities. Seventy-five per cent or more of the class day is teacher-directed.

8. Teacher monitoring. The teacher monitors students engaged in learning directly and often.

9. Supplementary material. The amount of supplementary material used in teaching is moderate.

10. Teacher monitoring of student engaged time. The teacher consistently keeps track of the actual engaged time of the students.

11. Reading and/or math specialist. Specialists in reading and/or mathematics are seldom or never used in the class.

12. Engaged time as a percent of assigned time. In terms of assigned time to a unit of learning, the student's actual engaged time for that unit is high.

13. Supplementary materials. The supplementary materials used are directly related to the task.

14. Group size in teaching reading. In teaching reading, the students are taught individually with group interaction.

15. Course goals. The goals of the course are determined primarily by the teacher.

16. Unit purpose known to teachers and students. The objective or purpose of the unit being taught is stated clearly to the students.

17. Selection of learning tasks. The learning tasks for the students are determined by the results of individual diagnosis.

18. Teacher knowledge of subject matter. The teacher's knowledge of the subject matter being taught is high. One teacher has a master's degree.

19. Feedback to students. The feedback to the students of their progress is done on a regular basis.

20. Pupil monitoring during class time. The students are monitored during class time primarily by the teacher plus aides and/or peers.

Classroom Atmosphere for Learning

1. Positive affect. Praise or other positive affect is expressed by either the teacher or a pupil one to five times in a typical five-minute period.

2. Criticism or negative affect. Criticism or other negative affect is never expressed by either the teacher or a pupil in a typical five-minute period.

3. Pupil non-task activity. Less than a quarter of the students are typically whispering to each other or are out of their seats moving about in a typical five-minute period.

4. Percent of classroom day in non-substantive activity. The typical pupil spends less than 10% of the classroom day moving about or talking to other people.

5. Time spent in basic skills. The typical pupil spends 50% or more of his time being taught or practicing basic skills.

6. Teacher response to pupil inability to answer. When pupils are unable to answer her questions, or perform the tasks she expects, the teacher almost always responds with patience and acceptance.

7. Decisions about pupil learning tasks. No answer.

8. Choice of pupil learning tasks. Pupil learning tasks are chosen by the teacher to assure pupil success.

9. Homework. Homework is assigned regularly.

10. Teacher orientation toward "covering the material". In reference to the teacher's orientation to "covering the material," progress is in small steps, only as students have learned material well, or even overlearned it.

11. Peer tutoring. Peer tutoring is used regularly.

12. Instructional materials. Instructional materials are from a standard curriculum.

13. Teacher checking during pupil seatwork. When pupils are doing seatwork, the teacher routinely relies on the pupils to come to him/her with problems or questions.

14. Pupil questions about work. When pupils have questions about their work, the teacher usually answers as in (1), but sometimes gives "hints" or refers the pupil to some other source.

15. Recitation. In recitation, when a pupil fails to answer or says he doesn't know, the teacher usually "stays with" the pupil, but sometimes gives the answer or refers the question to another pupil.

16. Percent of basic skill questions answered correctly by pupils. Eighty-five percent or more of teacher basic skills questions are answered correctly by pupils.

17. Pupil ideas. In teaching basic skills, the teacher expects pupil ideas to be closely related to the topic.

18. Feedback to pupils in recitation. In recitation, feedback to the pupil from the teacher is almost always immediate, letting the pupil know whether he is right or wrong.

Brevard County Math Program
Title IVC

General Description of the Program

This project has been under way for a number of years, and in a sense any set of descriptors which were appropriate at one point in time would not be for another point in time. The project itself has been a research and development project developing curriculum materials and teaching procedures for teaching math to disadvantaged children, grades K-6. The development phase has been completed, and the project is now in the dissemination phase. Different aspects of this review of programs are appropriate to it at different points in its development, but the attempt will be made to make clear whether it is the development or dissemination phase which is being described.

Parent Involvement

Parent involvement, as such, is not a part of this program. However, as it is being disseminated, another program concerned with parent involvement is present in numbers of the same school, and as a consequence the two have been implemented together and in a very real sense support each other. For example, the math project has been concerned with both teaching classroom management skills and also with developing teaching material for pupils to work with individually and in small groups. As these materials have been put to use in classrooms, volunteers, who are part of the parent involvement project, have been utilized in some of the classrooms to assist teachers by working with pupils as they work with these materials.

Selection and training of the parent volunteers (called Apple Corps) take place at a school level, although coordination of the program takes place at the district level. The fact that the training and supervision of volunteers take place on a school-by-school basis means that it is somewhat diverse, but the presence of the two projects in the schools at the same time has meant that, with some frequency, parent volunteers have been trained using the same training materials that have been developed by the math project. For example, one of the Learning Activity Packages (LAPS) developed in the math project has to do with communicating with others, and that LAP is used with some frequency in training parent volunteers. Others having to do with math teaching are also used on occasion, of course.

Administration and Organization

1. Program evaluation. Since the math project was originally a research and development project it has had extensive and intensive validation. Among these procedures, questionnaires have been administered to both parents and teachers before and after they have had experience with training programs. Parents and teachers both have responded generally very enthusiastically to the program, although parents in one of the middle-class schools expressed some concern about their children being bused to another location, and raised questions of whether the training for teachers could not occur in the same school their pupils were attending.

The effects of the program for teachers have been evaluated by pre- and post-observation, with evidence that skills, which had been identified as important in math teaching, have been increased for experimental teachers as compared with control teachers. Achievement data for pupils have also been collected in a pre-/post-, experimental-control group design, with results which are both statistically significant and practically important, showing increased gain for pupils in the experimental program. Further, an interaction with pretest score has frequently occurred indicating that pupils who gain most from the program are those who are either low in pretest score or low in self-concept score (the characteristic of pupils for whom the program was specifically designed).

2. Community involvement in school policies. The nature of the advisory committee has changed as the character of the project has changed. The initial advisory committee was largely made up of professionals such as the math supervisor from the Department of Education and school system division heads whose help would be needed in the project, but as the project has moved to dissemination, a different group serves as an advisory committee, made up of people from the community whose advice would be more pertinent in this phase of the project (an attorney, a physician, a banker, a marketing person, etc.).

3. Rules and regulations. Those rules and regulations at the federal, state and county levels which are relevant to compensatory education are implemented in the project.

4. Community involvement changing the curriculum. Development of a new curriculum has largely occurred by drawing on the expertise of professionals experienced with teaching math to disadvantaged pupils. In the involvement of schools in the experimental and development phase of the project, and also in the diffusion phase, however, informing community groups about the program is an inportant activity.

5. Community involvement in planning. Community members are involved in the regular order of business of the Brevard Teaching Center Program.

6. Teacher opposition. In the R & D phase of the project, schools as schools were recruited with the assignment to the experimental or control condition made randomly. Concerns of individual teachers were ultimately dealt with between teacher and principal, but the project had a role in informing teachers about the nature of the project, its objectives and its activities. A typical occurrance was that once a teacher fully understood

that the aim of the project was to help teachers in working with children, objections typically vanished.

7. Harmful teacher work. Both individualized materials and individual help are provided to teachers as a part of the training program to help them solve problems.

8. Pupil achievement standards. Evaluation of the project has involved a pre-post, experimental-control comparison in which pupils in the experimental program have made statistically significant and practically important gains on standardized achievement tests as a function of being in the program. In a sense, the entire project is aimed at improving pupil achievement. A new curriculum has been organized and developed; materials for pupils and training materials for teachers have been developed; one-to-one teaming is carried out by a member of the project staff who works on an individual basis with each teacher during a training period, in which the teacher and her class are brought to the inservice teaching center for a period of weeks. As part of the development, levels of pupil skills have been identified, built on Piaget's concept of moving from the concrete to the semi-concrete activities, and finally to the textbook pages. Teachers are trained in use of these materials which give teachers "hands-on" experience. All these materials have been developed to provide the methods, materials and the teacher skills to promote pupil learning in mathematics. In the dissemination phase, rather than bringing teachers and pupils into a central location (the inservice workshop), a room is typically equipped as a training location in each school, and the teacher and his or her class comes to that room for experience in learning to use the curriculum and materials.

9. Teacher suggestions for improving the program. Although the initial development work was carried out by project staff, as soon as the materials

began to be used in training teachers, unsigned questionnaires were used regularly, soliciting suggestions or criticisms of the procedures or materials. Every comment was considered by the entire staff, and ones which appeared more than once were made central in modification and redevelopment of the materials. Feedback on problems and difficulties was basic to rewriting materials, which took place over successive years. Suggestions and concerns are still being solicited. A common concern, for example, is that there is not enough time for teachers to carry out program related activities. As an example, LAP 2 is concerned with diagnosis, and twelve hours of released time is allocated for teaching diagnostic procedures to the teacher. But once the training is completed, teachers use these procedures on a regular basis for children in their classrooms, but that time is the teachers' time rather than released time.

Characteristics of Administrators

1. Utilization of opinions of others. Teachers felt free to suggest ideas for the program. While it was clear that the program was carefully structured and organized, it was also clear that people in the program felt free to offer suggestions for changes or new ideas for materials or procedures for the program. It was equally clear, however, that these ideas would not be accepted uncritically, but would be carefully evaluated. A good idea would be accepted and used; a questionable one would not.

2. Democratic administration procedures. In a sense this question is not applicable. The central concern here is the administration of the program, rather than the administration of the individual schools within which the program is being implemented. In one sense, the operation of the program (as contrasted to its development and implementation) was democratic. Activities with which pupils would be engaged within the math

center were not decided by math center personnel, but rather were a consequence of consultation between math center personnel and individual classroom teachers. The math center teacher saw as his or her task to provide supporting and reinforcing activities for skills which the teacher selected. At the same time, it seems inescapable that the choices made by teachers reflected the curriculum with which they had had training.

3. Experimental attitudes. Again, this question seems more appropriate to apply to the program than to the individual school administrator. The program itself is a demonstration of an experimental attitude, and as noted above is still open to new ideas and to suggestions.

4. Interests others in examining ideas. Since the research and development phase of the project is complete at this point, analysis of ideas only pertains to new ideas which might be adopted and made a part of the program in its on-going form, as noted above. It seems unlikely that changes would be frequent now, however.

5. Cooperation with non-educational groups. Although there is not an active parent involvement component in the usual sense, parents are requested to come to conferences in which their child's status in the math curriculum is discussed. Ways in which parents can help their children are suggested. In some centers, at least, regular sets of practice materials are sent home with pupils for parents to work with them. It was also typically true that parents, working as volunteers, were helping with the instruction. Most often, this consisted of supervising children as they worked with games which taught mathematics concepts--a process which could be taught to parents relatively quickly, since the games came with complete directions.

6. Implementation of new policies. The schools in which the program is active are, by definition, schools which are interested in new policies.

The schools in which observation was carried out were both schools in which principals clearly had ideas of their own about the effectiveness of the program. At the same time, one of the principals made clear that feedback from teachers at the end of the year was sought and valued. The feedback dealt with the successes of the program, how the program might be improved, and whether it was worth allocating one FTE for a math center teacher, which would result in other teachers having somewhat larger classes.

Instructional Characteristics

1. Class size. Class size in these schools ranged typically more than 30, but the groups within which instruction occurred in the math center typically ranged from 4 to 8. In one instance, a total class activity was observed in the math center.

2. Allocated vs. engaged time in reading. Not applicable, since the program under study was a mathematics program.

3. Cognitive level of teacher questions. Questions within the program learning activities occurred at more than one level. On the one hand, a great deal of time was spent in assuring that pupils knew number facts, for example. Sums and differences for combinations of numbers were drilled until students could solve them rapidly and accurately. At the same time, it was also clear that a framework of concepts was being developed within which these number facts would be used. Time spent on facts and information would have been considerably greater than that spent on concepts, but it was clear that the concepts were regarded as important.

4. Time spent in reading. Not applicable since this was a math program.

5. Time spent in mathematics. Approximately 50 minutes of the allocated hour are used actively for pupil engagement in learning. A part of the program is concerned with how to distribute materials and to get pupils to work

within the first 5 minutes of the activity, and how to terminate activity with no more than 5 minutes being required at the end of the hour.

6. Organization of reading groups. Not applicable.

7. Teacher-directed learning activities. In the typical classroom this was reported to range from 50% to 75% per day spent in active basic skills instruction.

8. Teacher monitoring. Teachers monitored pupil learning activities, and records were kept on a daily basis. It was clear that the math center teachers knew where each child was each day in terms of both his skills and his difficulties.

9. Supplementary materials. In the conception of the program, the curriculum is the scope and sequence of the skills in which a pupil is to learn, and all materials are supplemental to learning those objectives. A staff member commented that the curriculum could be carried out on the beach, using shells. It would take some ingenuity on the part of the teacher, but it could be implemented in that way. Other materials simply make the process easier. On the other hand, the amount of supplementary materials available is very high. I was told that there were more than 800 pieces of supplementary material which were part of the program.

10. Teacher monitoring of student-engaged time. Teachers were clearly aware of pupil involvement. I never heard a teacher remind a child that he was off-task, because I never saw a child off-task in the math center. As an example, during the math center period at one of the schools, activities were interrupted by an announcement which brought all students out on the lawn in front of the school. As the math center group was walking around the school toward the front yard, I heard one of the pupils following up the classroom activity with a series of questions to the teacher. When we

got back to the classroom, although the teacher arrived with me, three subgroups, which had been working independently, were just as hard at work when we arrived as they had been earlier when the teacher was present in the room. It was clear that the materials and activities provided by the program were sufficiently involving that pupils worked on them without the need to be monitored by teachers. Rather, their interest and their involvement was obvious.

11. Reading and/or math specialist. Daily use is made of the math program specialist by each classroom in each school. Staff at the level of program itself are available to schools, visit schools frequently and, in fact, monitor projects across the state. Within any given school, however, there is a math center teacher who has been trained by the program and who is available to teachers and works every day with students from their classes. In a sense, now, the program has become a trainer of trainers, so that there is a specialist in the program within each of the participating schools. As the program is being implemented, the trainer spends time with each teacher and classroom daily.

Another aspect of the project activity, which is relevant, is that a member of the staff visits each project in the state which is using those materials at least three times a year, monitoring activities.

12. Engaged time as a per cent of assigned time. Part of the program plan is to teach teachers to minimize lost time in initiating and terminating activities. Observations of the math centers indicated tnat transitions were brief and smooth, and that pupils are highly engaged during the time allocated. Per cent of engaged time would have been greater than 75% in the sessions observed.

13. Supplementary materials. Supplementary materials are directly related to the learning tasks of pupils. Activities flow from the scope

and sequence laid out in the curriculum, and the materials available at each point are relevant to the learning which is intended to occur at that step.

14. Group size in teaching reading. This is not applicable in a math program.

15. Course goals. The goals and objectives of instructions from day to day and from pupil to pupil, flow directly from the curriculum.

16. Unit purpose known to teachers and students. The objectives are clear to teachers, but may or may not be to pupils. When the sequence of activities is made out in advance, some pupils don't move as rapidly as anticipated, and other pupils "race" to get ahead. As a consequence, not all teachers post the schedule of events ahead of time for pupils.

17. Selection of learning tasks. Math class teachers are aware each day of the work done by the pupil that day, and the next day's work is planned in cooperation with the teacher on the basis of the pupil's performance.

18. Teacher knowledge of subject matter. It was clear that the teacher's knowledge of subject matter was high.

19. Feedback to students. Feedback to students occurred on a regular basis, typically daily.

20. Pupil monitoring during classtime. This was carried out by teachers plus aides and/or peers, but it was equally clear that monitoring was unimportant. Pupils worked because they were interested and involved. The only teacher correction of a pupil that was observed in any of the sessions was a correction by the teacher of the manner in which a student entered the classroom. Once students were present in the classroom, only once was a request heard by a teacher for a pupil to follow a different procedure as he worked on a learning task.

Classroom Atmosphere for Learning

1. Positive affect. Very little positive affect was expressed in the classroom. It was clear that success in the work, and the interest intrinsic to the work were primary motivations for the pupils.

2. Criticism or negative affect. In the typical five minute period no negative affect or criticism occurred. Again, the only incident observed had to do with the way in which pupils entered the classroom.

3. Pupil non-task activity. In the various sessions observed, no instance of off-task behavior was observed. Rather, students were intensively involved in the work which they were doing.

4. Per cent of the classroom day in non-substantive activity. Within the math center that per cent would be very close to zero. Again, pupils were single-mindedly task oriented.

5. Time spent on basic skills. In classrooms, it would have been more than half of the day; in the math lab the time was very close to 100%.

6. Teacher response to pupil inability to answer. Teachers consistently responded with patience and acceptance when pupils were unable to answer questions.

7. Decisions about pupil learning tasks. These decisions were typically made in conference between classroom teacher and the math center teacher, although some consideration of pupil preferences was also given.

8. Choice of pupil learning task. Two patterns were observed in the assignment of learning tasks. For pupils who were working to establish minimum competence, the pupil received a work sheet each day made up of materials which he was sure to be able to answer successfully, and for it he received a "star". He also had additional work, which was at a level at which his success was less than complete, and from which his errors were used as a basis for the assignment of the next day's activities. For the

most able pupil group, questions were frequently posed which challenged the pupil to think. In one such class, for example, a pupil had been led to produce two answers which were inconsistent with each other, to which the teacher asked, "How could that be possible?" and left it with the pupil to mull on.

9. Homework. Homework is assigned daily.

10. Teacher orientation toward "covering the material." Work is paced to cover the work expected for the year, but pupils differing in ability will do different amounts of work. More able students delve more deeply into the technical areas; less able students will be engaged less deeply.

11. Peer tutoring. Peer tutoring in the sense of peer involvement in games and activities in which the students correct each other during the course of the game are often used. Peer tutoring is not used in a didactic sense, however.

12. Instructional materials. Materials are commonly made both by the teacher and by the project. The project often supplies ideas and procedures and the teacher draws on these to produce materials herself. Some materials, however, are produced by the project, or are drawn from commercial sources.

13. Teacher checking during pupil seatwork. Within seatwork activity, the teacher moves from child to child checking to make sure the child understands what he is doing, and explaining in detail where he does not.

14. Pupil questions about work. When students who are struggling with learning basic skills, answers were full and direct with the teacher checking to make sure that the pupil understood. On the other hand, when able students were going further with materials, the teacher often asked challenging questions, inviting pupils to think through for themselves what the answer might be.

15. Recitation. Teachers routinely gave the answer or referred the question to another pupil when a pupil wasn't able to answer in large group recitations.

16. Per cent of basic skills questions answered correctly by pupils. Between 75 and 85% of teacher questions were correctly answered in the recitation.

17. Pupil ideas. Pupil ideas were expected to be closely related to the topic, although in work with advanced pupils teacher questions might be "brood" or go beyond what the pupil knew. But it was clear that the pupil activity was expected to be directed at an answer to that question, and that an answer would be judged as correct or not.

18. Feedback to pupils in recitation. For students learning their number facts feedback was immediate, letting the pupil know whether he was right or wrong. On the other hand, for pupils who were more able, pupils might on occasion be asked to evaluate their own answer or be encouraged to mull over what a right answer might be.

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Brevard County Title I Program

General Description of the Program

This Title I program operates at grades Kindergarten through three, and is only concerned with increasing pupil reading skill. It works by giving pupils individual and small group instruction in addition to that which is provided in the classroom. The classroom schedule is coordinated with the Title I program, so that pupils do not miss regular classroom instruction in basic skills in order to attend program activities. The times in the activities differ with grade level: at the kindergarten level, each pupil spends thirty minutes a day in a small group (maximum of four pupils) with an aide, or as a group assembled on the basis of individual diagnosis of the pupils. In first and second grade, each pupil spends forty minutes a day with a program teacher in a small group (ten or less), again assembled on the basis of pupil diagnosis and also spends twenty minutes a day in tutoring sessions, on a one-to-one basis with a tutor. In third grade, each pupil receives twenty minutes of individual tutoring a day. The activities which go on in these small group and tutoring sessions are carefully coordinated with the regular classroom activity, so as to be supportive of them, but not duplicative.

Parent Involvement

1. Parent involvement component. Although parent involvement is an integral part of the Title I program, as required by federal regulations, it is not a major part of the program, and program personnel express

concern about how to make it more effective than it is. A feeling expressed repeatedly is that when program personnel make home visits or call, in a high percentage of instances parents are at work or otherwise not available, and that although parents usually attend one meeting a year at school, it is rare that a parent will attend more than one meeting.

2. Home visitation. Home visits are part of the parent involvement program. At an earlier time staff were allocated to make home visits to each home once a week, in one of the grade levels, but that has been cut back because of resources. Currently, a budget of approximately $100,000 is allocated to aides who make home visits. This works out to approximately one aide per 150 pupils, so that five to six home visits are made per year. Aides are trained in several meetings each year. The principal objective of home visits is to involve parents in the program by word of mouth. The major activity is that of informing parents about the progress of the child in school, and about the kinds of learning activities in which the child is engaged. Several times a year, home learning tasks are delivered to the home, intended for the parent to work with the child.

3. Parent involvement in decision-making. Parent advisory committees (PAC) exist at each school, as well as a district level committee, which serve advisory functions to the Title I program. The principle concerns of the committee are program related. Parents are recruited by way of notices which are sent home. This is followed by a general meeting early in the year intended to inform parents about the program and the activities in their child's classroom and small groups. Parent advisory committee members are elected from that meeting. A budget of $1,000 a year is set aside, primarily for travel.

4. Parents as learners. "Make and take" workshops are held three times a year in each area (Brevard County is 70 miles long, stretching along the Indian River. Consequently, for administrative purposes, it is divided into three geographic areas: the north, the south, and the central). At each of these workshops, parents are taught to make materials for a learning activity which can be carried-out at home with their own child, as well as hearing speakers. There is no specific budgetary allocation for this; it is an activity which is assumed by the Title I staff.

5. Parents as volunteers. Parents are used as volunteers where they are available, but the use is "spotty". At three meetings a year, parents are invited in to learn about the program and about their own child's activities, but the staff feeling is that a parent typically does not attend more than one of these meetings. Very few parents volunteer to help in school activities, although a few do and are welcome.

6. Parents as paid employees. There is not a specific program intended to recruit parents as paid employees.

7. Other parent involvement. The only parent involvement activity is that of informing parent about child's standing; areas in which he is doing well, and areas in which he needs help. Grades are not given, rather this reporting procedure is followed.

8. Project personnel. Jackie Cunningham, Anne Yarbrough, and Avenell Taulbee are the professional staff working with Mr. Peterson.

9. Emphasis. Less emphasis is given to the parent involvement program than to other parts of the program, with the same staff being involved in all parts.

10. Data. No data are collected on the success of the parent involvement program.

Administration and Organization

1. Program evaluation. Norm referenced achievement tests are used pre- and post-, as well as the criterion referenced materials which are used in the reading program for individual diagnosis and prescription of learning activities for pupils. The norm referenced test results show higher standing in the norm tables at the end of each year than was true at the beginning of the year, rather than the progressive falling behind which would be expected of pupils in lower socioeconomic status levels. A regular needs assessment is carried out in which teachers, aides, PAC members, and principals respond to various aspects of the program, and make suggestions for changes. These suggestions are considered by district level staff, and changes planned on their bases.

2. Community involvement in school policies. The lay advisory committee is the principle input into school policy. It reviews what was effective in what was done this year, what was less effective, and what should be done differently next year. A current question, for example, is whether the program should be broadened to work with math as well as reading.

3. Rules and regulations. Federal, state and county regulations are followed in the program.

4. Community involvement in changing the curriculum. As indicated above.

5. Community involvement in planning. Teachers and parents are involved now in meetings planning next year's program, although the major input is from professional staff rather than from parents.

6. Teacher opposition. There are 23 schools in the program, in which management is school based, and the principal has primary responsibility for the work in his school. At the same time, it is clear that the program which is under way has had extensive and careful development, and although it is open to new suggestions, and they are collected each year, changes are not extensive. Decisions about changes are made at the district level. Teachers in individual schools are expected to implement the program as planned. It was clear in both schools visited that the principals were strongly behind the program and supported it enthusiastically.

7. Harmful teacher work. The union is a factor in how differences with teachers would be handled. The first step would be to speak with the teacher or advise the teacher by note that concern about his or her work existed. After 30 days, there would be a follow-up and a conference. If a teacher's work was not satisfactory, then a decision would be made about next action.

8. Pupil achievement standards. The Holt Reading Assessment is used in classrooms county-wide, which provides criterion referenced measures which are recorded in individual pupil progress charts. Testing is carried out at the end of each unit. The Title I program maintains records on the progress of each pupil, and on the basis of regular consultation with classroom teachers provides supplemental instruction for pupils outside the classroom, which supports and augments the classroom activity.

9. Work with teachers to change course offerings. This is not an intent of the program. Rather the program activities follow from and are interrelated with the work of teachers in classrooms.

10. Teacher suggestions for improving the program. Again, input into program plans is made by regular surveys of the professional staffs of the schools with decisions made at the district level.

Characteristics of Administrators

1. Utilization of opinions of others. One school principal was described as being highly selective in utilizing opinions of others, but sometimes valuing them highly. So far as this program is concerned, it is clear that the program has evolved, has a definite structure, and that by and large the program is implemented in the form in which it has evolved.

2. Democratic administration procedures. These procedures are not seen as relevant by members of this program. Rather they see the program as external to the regular classroom activity, but as having established itself as highly effective, so that decisions about procedures are largely irrelevant. Procedures do exist, however, for the input of new ideas, but they take place at the district level, rather than at the level of the individual school.

3. Experimental attitudes. Programs tend to operate within the practices which have been developed and specified, but there still is openness to new ideas.

4. Interests others in examining ideas. This issue is largely irrelevant because of the careful development of the program, although critical analysis of the program and reactions to it are welcome.

5. Cooperation with non-educational groups. Concern was expressed at both schools which were visited toward increasing involvement of parents inthe education of their children, with some frustration expressed that there was not greater success in this process. On the other hand, the sense that school staffs were heavily committed was very clear, and the extent to which further activities could be taken on was clearly limited.

6. Implementation of new policies. Policies relevant to the program appeared to be effectively implemented.

Instructional Characteristics

1. Class size. Class size was typically between 25 and 30, although occasional classes varied either way from this figure. Again, however, the program is not classroom based, but is carried on outside the classroom. In the program, much of the instruction takes place on a one-to-one, tutor-pupil basis, supplemented with small groups of no more than ten at the first- and second-grade level, and groups of no more than four at the kindergarten level.

2. Allocated vs. engaged time. The relationship between these two is high. In classrooms, pupils spend from two to five hours a day with language arts, but an hour to an hour and a quarter a day reading, which is relevant for this program. It was estimated that approximately three-quarters of the allocated time would probably be used in active involvement by the typical pupil.

3. Question level. Questions asked by teachers primarily focused on knowledge and factual information within the program.

4. Time spent in reading. In addition to the normally scheduled classroom time, kindergarten pupils spend thirty minutes a day in the program, grades one and two spend one hour a day, and third grade spends twenty minutes in individual tutorial work.

5. Time spent in mathematics. A typical student would spend fifty minutes to an hour engaged in math activities in the classrooms associated with this program.

6. Organization of reading groups. Classrooms were typically organized into two or three reading groups; these groups would usually be of eight or ten students. In addition to these, the program offers individual and small group tutorial work as indicated above.

7. Teacher-directed learning activities. It was estimated that pupils in these classrooms spent 75% or more of the classroom day involved in learning activities which had been specified by the teacher.

8. Teacher monitoring. In class, pupils are monitored directly and often; in the program, they are monitored constantly.

9. Supplementary material. Use of supplementary material is very high. The Holt series is used in the classroom, but materials from Scott-Foresman, Sesame Street, and The Electric Company are used in the program to supplement classroom work, as well as individual materials which are developed by teachers in the schools.

10. Teacher monitoring of student engaged time. Consistent and high.

11. Reading and/or math specialists. The program itself provides reading specialists who are used outside the classroom to support the work of the classroom. Within the classroom, county math, language arts, early childhood, and remediation specialists are available if needed, but the need is infrequent, since the school has among its own staff members

specialists in most of these areas. Most of the work of the reading specialist takes place at grades four through six, since the program is not involved in those grade levels.

12. Engaged time as a percent of assigned time. Percent of time in which students are actually engaged is indicated as being high, higher than the average 50%.

13. Supplementary materials. These are materials, directly related to the task, which the program identifies and uses. As indicated earlier, materials from Scott, Sesame Street, and The Electric Company are used with frequency. This past summer a committee of teachers analyzed these materials, indexing them to the specific objectives of the whole program, as used in classrooms. As a consequence, at whatever point in the reading series pupils are having difficulty, related supplementary materials are indexed and available.

14. Group size in teaching reading. In classrooms, the total class is typically divided into two or three groups, but this is supplemented by the program, in which individual and small group instruction occur.

15. Course goals. Course goals are drawn from the curriculum, which is followed with supplementation as indicated.

16. Unit purpose known to teachers and students. Objectives are laid out in the curriculum and are known to teachers. They are also known to pupils, being made available on transparencies for teachers to present to pupils.

17. Selection of learning tasks. While the learning tasks follow the curriculum, individual help, which is provided for students, is selected on the basis of individual diagnosis, which is carried out

frequently for individual pupils. The classroom teacher and the Title I staff collaborate in the diagnosis and the selection of reinforcing activities.

18. Teacher knowledge of subject matter. Within the program, this is high. Although discussion with school staff as well as program staff suggest that the teachers would also be knowledgeable, there is no direct evidence on that point.

19. Feedback to students. This is done on a regular basis, in formal fashion at the end of each unit, but informally on a weekly basis within the program.

20. Pupil monitoring during class time. This is carried out almost exclusively by the teacher.

The Classroom Atmosphere for Learning

1. Positive affect. Occurrences typically were two or three times in a five-minute period when a program teacher was working with a small group. In individual tutorials, the frequency was more like once or twice in a five-minute period. Staff members within the program are taught to distinguish the routine "good" or "okay" from real praise, and to give real praise contingent on real achievement.

2. Criticism or negative affect. In the typical five-minute period this would not occur at all. Teachers working with individual pupils or with small groups are taught not to tell a pupil he is wrong but to ask him to reread when he makes an error in reading. Of course, the pupil understands that this means he has made a mistake, but the responsibility for finding and for correcting it is his.

3. Pupil non-task activity. These behaviors are very infrequent within program activity. Only an occasional child moves from his location, or whispers with another child, so the median amount during the typical five-minute period would be zero.

4. Percent of the classroom day in non-substantive activity. In regular classrooms, the rate would be less than 10%; within the program, essentially none.

5. Time spent on basic skills. The entire day for the typical child would be represented by his spending from 50 to 75% of his time working on basic skills learning.

6. Teacher response to pupil inability to answer. The typical style of teacher response was one of patience and acceptance. In no case was there reproof for a pupil who was unable to perform as requested.

7. Decisions about pupil learning tasks. These decisions are made by the teacher and/or program staff. Pupils are expected to move through the sequence of skills, which the curriculum is intended to develop, and activities are planned to help the pupil meet these objectives.

8. Choice of pupil learning task. Learning tasks are carefully chosen to fit the student's current level of performance, so as to assure success. "Stretching" pupils is not seen as a functional procedure for these pupils and these objectives.

9. Homework. Homework is almost never assigned within this program.

10. Teacher orientation toward "covering the material". Student work moves ahead by small steps, only as the student has learned the material. This is primarily a decision of the classroom teacher rather than the program teacher, with program teachers working to supplement and to undergird or to reinforce the work paced by the classroom teacher. Within this

curriculum, there are seven identifiable levels of attainment, six of which are expected of the pupil if he is to be passed on to the next grade.

11. Peer tutoring. Peer tutoring is never used with pupils at this level.

12. Instructional materials. As indicated above, the basic curriculum is a Holt publication, with supplementation from Sesame Street, Electric Company, and Scott-Foresman. However, these materials are evaluated with care and are often considered not worth the time and effort to use. With some frequency teacher or school developed materials are substituted for them.

13. Teacher checking during pupil seatwork. At the primary level teachers tend to check systematically to be sure that pupils understand and are making progress; but at the intermediate level, teachers check less often and to a greater degree expect pupils to be self-reliant and to come to the teacher if they need help.

14. Pupil questions about work. The typical teacher response to a pupil question about his work is to explain fully and directly, and to verify that the pupil understands, rather than giving hints or cues or suggestions for other sources to be consulted to find the answer.

15. Recitation. When a pupil fails to answer or says he doesn't know, the typical teacher response is to "stay with" the pupil until she obtains an answer from him or her. Hints or cues may be offered, but part of the teacher's objective is to obtain an answer from the pupil.

16. Percent of basic skills questions answered correctly by pupils. School staff were unable to identify an expected percentage, but in the observation time which was available it appeared that the percentage would probably have been higher than 75%. It was clear that the orientation of

the program was to work at the level at which the student would be able to perform successfully.

17. Pupil ideas. Pupil ideas, when in the program, were expected to be closely related to the topic under discussion. Exploration of divergent ideas was not seen as relevant.

18. Feedback to pupils in recitation. Within program activities, the pupil always knew when he had made a mistake, although he was not told directly that he was wrong. Rather, he was asked to reread in order to identify his mistake himself. Correct work was regularly accepted by the teacher, and it would be praised only if it reflected better than average performance for this individual pupil.

Broward County Middle School
Corrective and Remedial Reading Program

General Description of the Program

During my visit I concentrated on the Middle School Program (grades 6, 7, 8), although this program is K-12. Like the Palm Beach program, this program began through local effort in 1973-74 in four schools. Currently it involves 11,704 remedial and corrective children in 27 middle schools and wishes to fully expand to serve 19,679 developmental children. Also like the Palm Beach program, it looks beyond the Functional Literacy Test to the Comprehensive Test of Basic Skills and the Stanford Achievement Test. Next year the CAT will be used instead of the CTBS.

Administratively the program is run by Becky Williams, Supervisor of Reading, and Georgiana Turner, Curriculum Planner. They are at least equal to the building principals and the Director of Curriculum, Mrs. Leone, resolves any disputes. As a result, I interviewed Becky and Georgiana with with the Level II instruments, as well as a principal and teacher.

Program-wise all 27 middle schools have a reading coordinator and the teachers are all certified in reading. Aides and parent volunteers are advocated by the program but are not used in all schools. Parent involvement is also encouraged in terms of classroom observation, participation on the School Advisory Committee, and through a systematic homework procedure.

In terms of the classroom, while wide variation exists, the direct instructions model again seems to be used with children operating at the lowest reading levels. More challenge and higher cognitive level activities are used with children operating at other levels. The curriculum materials that Becky and Georgiana have developed are fantastic and I have brought back a whole shopping bag full.

Major program weaknesses are in the areas of evaluation and parent involvement as acknowledged by Becky. These could be easily remedied, given the tremendous overall program strength.

This report combines the comments of county supervisors and program directors with those of a building principal and a reading teacher in grades 6, 7 and 8. The names of the respondents reflect the change in line position.

Parent Involvement

1. Parent involvement component. This program has a parent involvement component where parents are involved as: (1) observers, (2) volunteers, (3) members of the School Advisory Committee, and (4) in a sequential homework program.

2. Home visitation. Parents are not involved in home visitations.

3. Parent involvement in decision-making. Parents are involved in decision-making through the School Advisory Committee.

4. Parents as learners. Parents are not involved as learners.

5. Parents as volunteers. Parents are involved as volunteers.

6. Parents as paid employees. Parents are not involved as paid employees.

7. Other parent involvement. Other ways of involving parents are as observers in classrooms and through the systematic homework program.

8. Project personnel. There are no provisions for project personnel to be assigned the responsibility for the kinds of parent involvement indicated above.

9. Emphasis. Less emphasis is placed on the parent involvement component as compared to other components (e.g., curricular).

10. Data. No data have been collected on parent involvement.

Administration and Organization

(Becky White, respondent)

1. Program evaluation. There has been no attempt made to evaluate the schools' compensatory education program.

2. Community involvement in school policies. The community is involved in forming school policy through the SAC and through input from parents invited to participate in faculty meetings on policy issues.

3. Rules and regulations. Principals and faculty jointly arrive at rules and regulations concerning compensatory education.

4. Community involvement in changing the curriculum. Representatives of the community participate in planning conferences with the administration and PTA study groups sometimes are used in planning.

5. Community involvement in planning. The community is used in pre-planning or regular faculty meetings as resource people called in as the need arises. Parents are also involved as community members and serve as resource persons on curriculum and planning committees.

6. Teacher opposition. The county staff does not deal directly with teachers in these matters.

7. Harmful teacher work. The county staff does not share this responsibility with principals.

8. Pupil achievement standards. Pupil achievement standards are established through (1) providing a professional library with current periodicals and new professional books, (2) a periodic testing program, (3) closely supervised classroom teaching, and (4) requesting that teachers give homework.

9. Work with teachers to change course offerings. The county staff has responsibility for working with teachers in curriculum trying to bring

about changes in course offerings and content. Their efforts include (1) selling the staff on the need to improve the program, (2) providing released time for visitation to other classes and programs that will lead to program improvement, (3) close supervision of classroom teaching, and (4) getting faculty interested in new texts, periodicals and the professional library.

10. Teacher suggestions for improving the program. Suggestions from teachers for improving the compensatory programs are weighed by the supervisors and good ideas are accepted or offered to faculty for consideration. Poor suggestions are tactfully rejected.

Administration and Organization

(Ken Black, respondent)

1. Program evaluation. The principal presents a compensatory education program questionnaire to the SAC and uses periodic discussions with that group for community input on evaluation. Each compensatory teacher on continuing contract is observed at least once a year by the principal. Teachers on annual contract are observed 4 times yearly.

2. Community involvement in school policies. Suggestions from individuals in the community are used continuously in forming school policy.

3. Rules and regulations. Rules and regulations concerning compensatory education are determined by faculty with the principal following a hands-off policy.

4. Community involvement in changing the curriculum. The SAC serves as a community voice for suggesting curriculum changes.

5. Community involvement in planning. There is very little community involvement in pre-planning or regular faculty meetings.

6. Teacher opposition. When a teacher voices opposition in private conferences to ideas and judgments of the principal about compensatory

education instructional methods, the principal explains that his judgment results from faculty decisions. If it becomes necessary, the teacher is discouraged from making the criticism on that basis.

7. Harmful teacher work. Since it is almost impossible to fire a teacher whose way of work is harmful to the program, the principal issues a stiff reprimand in person.

8. Pupil achievement standards. Pupil achievement standards are established by closely supervised classroom teaching, providing a professional library, requesting that teachers give homework, and providing a periodic testing program.

9. Work with teachers to change course offerings. In working with teachers this principal tries to bring about changes in course offerings and content through individual conferences. At these conferences, he tries to sell the staff on the need to improve the program. Further, he provides released time to visit other classrooms and projects, closely supervises classroom teaching, and tries to interest the faculty in new texts, periodicals and the professional library.

10. Teacher suggestions for improving the program. Suggestions from teachers for improving the compensatory education program are taken to the reading coordinator in the school.

Characteristics of Administrators

(Dorothy Dobbs, respondent)

1. Utilization of opinions of others. The principal consistently seeks and considers the opinions of others.

2. Democratic administration procedures. The principal urges the use of processes consistent with best democratic practices. And he listens and tends not to overrule individuals and committees on right track.

3. Experimental attitudes. The attitude of the principal toward experimentation tends to be demonstrated by the methods he uses in trying out new ideas after careful study and follow through on the basis of results of experimentation.

4. Interests others in examining ideas. People are stimulated to seek solutions through critical analysis of ideas and encouraged to examine ideas which the principal thinks are important.

5. Cooperation with non-educational groups. This principal is most cooperative with non-educational groups working for community betterment. He is aware of and actively concerned with both desires and interests of community groups, agencies and organizations. Several projects of the school, such as band parents, police used as resource persons, parents involved in faculty-student basketball game, and a school beautification project, were presented as evidence of this cooperation.

6. Implementation of new policies. He moves surely and judiciously in effecting new policies.

Characteristics of Administrators

(Georgia Turner, respondent)

1. Utilization of opinions of others. Administrators in the program consistently seek and consider the opinion of others.

2. Democratic administration procedures. Their actions indicate that they both urge and use processes consistent with the best democratic practices.

3. Experimental attitudes. They maintain an experimental attitude by tending to try out new ideas after careful study and follow through on basis of results of experimentation.

4. Interests others in examining ideas. They stimulate people to seek solutions through critical analysis of ideas.

5. Cooperation with non-educational groups. The principals are aware of non-educational groups working for community betterment. This seems to be demonstrated by an active concern with the desires and interests of community groups, agencies and organizations.

6. Implementation of new policies. They move surely and judiciously in effecting new policies.

Instructional Characteristics

1. Class size. The total size of classes is (1) less than 20 for corrective and remedial students, (2) 25-30 for developmental classes.

2. Allocated vs. engaged time in reading. The relationship between time allocated to reading and time in which the students are actively engaged in reading is 50%.

3. Cognitive level of teacher questions. Questions asked by the teachers are designed to elicit knowledge of facts and information and a summary or interpretation. However, application and synthesis questions are asked at times.

4. Time spent in reading. Students are actively engaged in reading 30 minutes or more per day.

5. Time spent in mathematics. Students are actively engaged in mathematics 30 minutes or more per day.

6. Organization of reading groups. Although all of the possible groupings from individualized one-to-one are used at various times, the most common type of organization is in groups of six or more students.

7. Teacher-directed learning activities. 25 to 50% of the class day is involved in "direct teaching" (teacher-directed).

8. Teacher monitoring. The teacher monitors students engaged in learning directly and often.

9. Supplementary material. The amount of supplementary material used in teaching is very high.

10. Teacher monitoring of student engaged time. The teacher keeps track of actual engaged time of students consistently.

11. Reading and/or math specialist. Since the teachers are certified specialists in reading and math, outside specialists are seldom or never used.

12. Engaged time as a per cent of assigned time. In terms of assigned time to a unit of learning, the students' actual engaged time for that unit is average (50%).

13. Supplementary materials. The supplementary materials used are directly related to the task.

14. Group size in teaching reading. In teaching reading, the students are grouped according to type of reading class, i.e., (1) corrective readers are taught individually without group interaction, (2) remedial readers are taught individually with group interaction, and (3) developmental readers are taught as a total group.

15. Course goals. The goals of the courses are articulated in the county curriculum guide as (1) to be determined primarily by teachers, (2) drawn primarily from the curriculum guide, and (3) determined by the material in the texts.

16. Unit purpose known to teachers and students. The objective or purpose of the unit being taught is stated clearly to students.

17. Selection of learning tasks. The learning tasks for the students are determined by (1) the results of individual diagnosis and (2) an adaptation of the developmental curriculum.

18. Teacher knowledge of subject matter. The teacher's knowledge of the subject matter taught is high. All teachers are certified in reading.

19. Feedback to students. The feedback to the students of their progress is done on a regular basis.

20. Pupil monitoring during class time. The students are monitored during class time primarily by the teacher.

Classroom Atmosphere for Learning

1. Positive affect. Praise or other positive affect is expressed by a teacher or a pupil one to five times in a typical 5-minute period.

2. Criticism or negative affect. Negative affect or criticism is expressed by a teacher or pupil one to five times in a typical 5-minute period.

3. Pupil non-task activity. Less than one-quarter of the pupils or groups of pupils are typically whispering to each other or are out of their seats moving about during a typical 5-minute period.

4. Per cent of classroom day in non-substantive activity. Between 10 and 25% of the school day is spent moving about or talking to other pupils.

5. Time spent on basic skills. One-half of the school day or more is spent on practice of basic skills.

6. Teacher response to pupil inability to answer. When pupils are unable to answer teacher's questions, or unable to perform tasks teacher expects, (s)he usually responds with patience and acceptance but sometimes with reproof.

7. Decisions about pupil learning tasks. Decisions about pupil learning tasks are assigned by the teacher but include some consideration of pupil preferences.

8. Choice of pupil learning tasks. To the degree that the teacher chooses pupil learning tasks, (s)he chooses them so as to be within pupil's abilities, but offer a slight degree of challenge. At times however, tasks are chosen to assure pupil success.

9. Homework. Homework is assigned regularly.

10. Teacher orientation toward "covering the material." Although the intent is to "cover the material," assignments are modified to adapt to pupils' rates of learning.

11. Peer tutoring. High school students are often used as peer tutors, except at Pompano Beach Middle School, which is 60% Black.

12. Instructional materials. Instructional materials are usually from a standard curriculum, but accasionally use is made of teacher-made materials.

13. Teacher checking during pupil seatwork. When pupils are doing seatwork, the teacher systematically checks to assure that the students understand and are making progress. Sometimes pupils are relied on to come to the teacher if they are having a problem.

14. Pupil questions about work. Often when pupils have questions about their work, the teacher answers fully and directly and verifies that the pupil understands. Sometimes "hints" are given or the pupil is referred to other sources.

15. Recitation. In recitation, when a pupil fails to answer or says he doesn't know, the teacher usually "stays with" the pupil, but sometimes the teacher furnishes the answer or refers the question to another student.

16. Per cent of basic skill questions answered correctly by pupils. Pupils answer about 75-84% of the teachers' basic skills questions correctly.

17. Pupil ideas. In teaching basic skills, the teacher expects pupils' ideas to be closely related, but with some divergence.

18. Feedback to pupils in recitation. In recitation, feedback to pupils is usually immediate and clear. Sometimes pupils are encouraged to evaluate the adequacy of the answer that is given.

Carmen Elementary School
Waukegan, Illinois

General Description of the Program

The overriding objective of the Behavior Analysis - Follow Through model is grade-level achievement in the basic academic subjects for low-income children continuously enrolled in the program. It includes team teaching, parent involvement, small group and individualized instruction, motivational systems, an individualized curriculum, progress monitoring, and classroom planning.

The motivational system used in all Behavior Analysis classrooms involves positive teacher attention for appropriate student behavior, ignoring inappropriate behavior, and the absence of any form of corporal punishment. It also involves the use of a token economy or a contracting system with the students. Behavior Analysis teachers are trained in the principles and procedures of positive reinforcement.

During an average day in a Behavior Analysis classroom, children alternate between instructional periods and back-up periods (the time during which students exchange their tokens or a completed contract for activities and items they desire). Instructional periods vary in length, depending on the grade-level or time of year. By alternating from one instructional period to a back-up period and then to another instructional period, children will receive instruction in all academic areas during the school day.

The Behavior Analysis model also specifies that teachers will monitor the classroom progress of individual students and the instructional time actually allotted to each academic area. Daily schedule forms are maintained showing actual time spent--not the amount of time they plan to spend--in each area. For a period of 15 to 30 minutes each day, the classroom teaching team discusses the events of the previous day and plans carefully the activities for the next six hours.

Parent Involvement

1. Parent involvement component. The program has a parent involvement component.

2. Home visitation. Parents are involved in the program through home visitation.

3. Parent involvement in decision-making. Parents are involved in decision-making through PAC, which meets once a month. The slate of officers for the advisory group comes from PAC.

4. Parents as learners. Parents are involved as learners, and serve as instructors in classrooms.

5. Parents as volunteers. Parents are involved as volunteers. Newsletters provide information on volunteer training and program administration.

6. Parents as paid employees. Twenty parents are involved as paid employees; ten in grades K and 1, four in grade 2.

7. Other parent involvement. Parents are included in a variety of ways, such as field trips.

8. Project personnel. No answer.

9. Emphasis. The emphasis placed on parent involvement is equal to the educational component.

10. Data. The number of parents involved in the various categories is tabulated.

Administration and Organization

1. Program evaluation. The school's compensatory education program is evaluated through the presentation of questionnaires, the P.T.A., and occasionally by parents.

2. Community involvement in school policies. A standing lay advisory committee forms the school policies.

3. Rules and regulations. None.

4. Community involvement in changing the curriculum. Representatives from the community participate with the school administration in changing the school curriculum through planning conferences.

5. Community involvement in planning. The administration indicated that it utilizes the community in pre-planning or regular faculty meetings through having the people help determine school policies and also by having them participate in the regular order of business of the school program.

6. Teacher opposition. The administrator responded that if in private conference, a teacher opposed his ideas or judgments about compensatory education instruction methods, he would point out that while democracy calls for differences, it is sometimes necessary for a principal to make decisions. He indicated that he would help the teacher feel free to express his own opinions and let him know that the two of them would seek a better solution together.

7. Harmful teacher work. The administrator said that his method of dealing with a teacher whose ways of working he felt were harmful to the program was an indirect one--by sufficient hinting until the teacher realized the value of resigning. If this didn't work, the teacher would be dismissed.

8. Pupil achievement standards. Pupil achievement standards are established through closely supervised classroom teaching.

9. Work with teachers to change course offerings. In bringing about changes in course offerings or content, an attempt is made to sell the staff on the need to improve the program. Released time for visitations to other classes and other projects that will lead to program improvement is provided.

10. Teacher suggestions for improving the program. Teachers are encouraged to bring suggestions for improving the compensatory education program before a designated faculty committee and also to members of the faculty.

Characteristics of Administrators

1. Utilization of opinions of others. The principal is highly selective in utilizing opinions. He sometimes values ideas that differ from his own.

2. Democratic administration procedures. The principal attempts to use democratic means in the attainment of democratic ends; however, on pressing problems he can be expected to resort to expedient means.

3. Experimental attitudes. The principal has a favorable attitude toward experimentation. He tends to try out new ideas after careful study and follows through on the basis of the results of experimentation.

4. Interests others in examining ideas. The principal stimulates people to seek solutions through critical analysis of ideas.

5. Cooperation with non-educational groups. In reference to cooperation with non-educational groups working for community betterment, the principal is aware of and actively concerned with the desires and interests of community groups, agencies, and organizations.

6. Implementation of new policies. The principal is overly cautious in effecting new policies.

Instructional Characteristics

1. Class size. The total size of a class is 27.

2. Allocated vs. engaged time. There is a high relationship between the time in which the students are actively engaged in reading and the time allocated. The time allocation in this case is three hours. One hour is allotted each group. Forty to fifty minutes is spent in interaction and 10 to 15 minutes is task related.

3. Cognitive level of teacher questions. The teacher's questions are designed to elicit knowledge of facts and information.

4. Time spent in reading. The students are actively engaged in reading 30 minutes or more per day.

5. Time spent in mathematics. The students are actively engaged in mathematics 30 minutes or more per day.

6. Organization of reading groups. There are nine students in each reading group.

7. Teacher-directed learning activities. Over 75% of the day is teacher-directed.

8. Teacher monitoring. The teacher monitors students engaged in learning directly and often. He also uses paraprofessionals.

9. Supplementary material. A moderate amount of supplementary material is used in teaching.

10. Teacher monitoring of student engaged time. The teacher consistently keeps track of the actual engaged time of the students.

11. Reading and/or math specialist. Specialists in reading and/or mathematics are seldom used in the class.

12. Engaged time as a percent of assigned time. In terms of assigned time to a unit of learning, the student's actual engaged time for that unit is high.

13. Supplementary materials. The supplementary materials used are directly related to the task.

14. Group size in teaching reading. In teaching reading, the students are in the third grade, and there is more than one group.

15. Course goals. The goals of the course are determined primarily by the teacher.

16. Unit purpose known to teachers and students. The objective or purpose of the unit being taught is stated clearly to the students.

17. Selection of learning tasks. The learning tasks for the students are determined by an adaptation of the developmental curriculum.

18. Teacher knowledge of subject matter. The teacher's knowledge of the subject matter being taught is average.

19. Feedback to students. The feedback to the students of their progress is given at frequent intervals.

20. Pupil monitoring during class time. The students are monitored during class time primarily by the teacher plus an aide who teaches math.

Classroom Atmosphere for Learning

1. Positive affect. Praise or other positive affect is expressed by either the teacher or a pupil 16 or more times in a typical five-minute period.

2. Criticism or negative affect. Criticism or other negative affect is never expressed by either the teacher or a pupil in a typical five-minute period.

3. Pupil non-task activity. Less than a quarter of the students are typically whispering to each other or are out of their seats moving about in a typical five-minute period.

4. Percent of classroom day in non-substantive activity. The typical pupil spends more than 10% but less than 25% of the classroom day moving about or talking to other pupils.

5. Time spent on basic skills. The typical pupil spends 50% or more of his time being taught or practicing basic skills.

6. Teacher response to pupil inability to answer. When pupils are unable to answer her questions, or perform the tasks she expects, the teacher almost always responds with patience and acceptance.

7. Decisions about pupil learning tasks. Pupil learning tasks are assigned by the teacher.

8. Choice of pupil learning tasks. Pupil learning tasks are chosen by the teacher to assure pupil success.

9. Homework. Homework is assigned infrequently.

10. Teacher orientation toward "covering the material". Although the intent is to "cover the material," assignments are modified to adapt to the pupil's ratio of learning.

11. Peer tutoring. Peer tutoring is used infrequently.

12. Instructional materials. Instructional materials are from a standard curriculum.

13. Teacher checking during pupil seatwork. When pupils are doing seatwork, the teacher systematically checks to assure that the pupils understand and are making progress.

14. Pupil questions about work. When pupils have questions about their work, the teacher answers them fully and directly, and verifies that the pupil understands the work.

15. Recitation. In recitation, when a pupil fails to answer the question or says that he doesn't know the correct answer, the teacher usually "stays with" the pupil but will sometimes give the answer or refer the question to another pupil.

16. Percent of basic skills questions answered correctly by pupils. Eighty-five percent or more of teacher basic skills questions are answered correctly by pupils.

17. Pupil ideas. In teaching basic skills, the teacher expects pupil ideas to be closely related to the topic.

18. Feedback to pupils in recitation. In recitation, feedback to the pupil from the teacher is almost always immediate, letting the pupil know whether he is right or wrong.

Milwee Middle School
"Super Team Program"

General Description of the Program

Milwee Middle School "Super Team" program is designed to assist the lowest achievers in the sixth, seventh, and eighth grades. The program consists of three "Super Teams," a team at each grade level. The lowest 75 achievers in each grade level are assigned to the teams. The reasoning of the principal and the faculty was that low achievers will learn more provided they are given more instructional time. That is, the students would receive more direct attention from the teacher and he/she could monitor the students to be more aware of each student's "engaged time" in learning.

Each teaching team consists of a math teacher, a science teacher, a social studies teacher, and a language arts teacher. One reading teacher services all three teams. According to the principal, all teachers on the "Super Team" are above average teachers and for the most part volunteered to work on the program.

Parent Involvement

Parent involvement is a part of this program. The teachers on the team communicate more with parents than other teachers do in the school. However, many parents tend not to come in to the school for conferences. Approximately 25% of the parents are in contact with teachers at least three times per grading period.

The parents are not involved through home visitations and are not involved in the decision making of the program. Parents are involved as learners and are sent letters informing them about the program. Parents are involved as learners by talking to the teachers about the program and through special presentations made at the local PTO meetings. None of the budget for this particular program is committed to the involvement of parents as learners. Parents are not involved as volunteers in the program; however, one parent does help with some clerical work and typing. Most of the parents, whose children participate in this program, both work. Some parents do help on very special occasions. No parent is a paid employee of the program.

When the program first began, parent leaders helped by coming to the school to discuss with the assistant principal the program, and helped "spread the word" throughout the community in order to get community support for this particular program. According to the principal, the community is very much in support of this "Super Team" program.

Administration and Organization

1. Program evaluation. The school's compensatory education program is evaluated by occasionally presenting questionnaires to parents, the results from achievement tests, and diagnostic tests. The program is also evaluated in the community by having parent discussions at open house. The major technique for assessing the program is through the pre-test/post-test using the California Achievement Test.

2. Community inovlvement in school policies. Ideas for the program are usually obtained by the principal from individuals; however, suggestions have been made by a standing lay advisory committee. At this point in time, the use of the community in forming school policies is not utilized to any great extent.

3. Rules and regulations. The principal at Milwee Middle School is a very strong individual who utilizes his administration and faculty to arrive at the rules and regulations concerning the compensatory education program. Very little or no input is given by the student council or student-faculty committees.

4. Community involvement in changing the curriculum. Development of new curriculum has largely occurred by drawing on the expertise of professionals experienced with teaching disadvantaged pupils.

5. Community involvement in planning. There is very little use of community leaders in faculty meetings. The lay advisory committee does attend faculty meetings occasionally and does have some input into the meetings.

6. Teacher opposition. When the principal met with opposition to the program at faculty meetings, he pointed out that democracy calls for differences; but, there are times when a principal must make decisions. He also pointed out to the faculty that they should feel free to oppose the program in order that they could seek better solutions together about the program. Another technique the principal used to work on the opposition of the program was to discuss the problems with the department chairman and have them solve the problems within their department. The principal was quick to point out, however, that there was very little opposition to the program. Most people welcomed the program when they became informed about it.

7. Harmful teacher work. The principal stated when a teacher's work was harmful to the program he tried to bring about change in the teacher by discussing the teacher's weak points. If after a while, change could not take place or would not take place, the principal would recommend the teacher go back to the regular program or to some other school which appeared to be more suitable for that particular teacher.

8. Pupil achievement standards. The principal closely supervises the classroom teacher. He also works very closely with the department chairmen to determine any objectives in each subject area, then sets the goals to achieve those achievement standards. At the end of the year, the department chairmen meet with the principal and determine if the goals have been met for each particular program.

9. Work with teachers to change course offerings. The principal at Milwee is a very good salesman. When he wants to bring about changes in the course offerings or content, he "sells" the staff on the need to improve the program. He also provides released time for visitation to other classes and other projects that will lead to program improvement.

10. Teacher suggestions for improving the program. The principal treats teachers' suggestions for improving the compensatory education program in a very democratic manner. He brings all suggestions before a designated faculty committee, and is very likely to bring the suggestions to the entire faculty for consideration. However, before he brings the suggestions before the entire faculty, he first goes through the department chairman and department members. The principal stated that he prefers to work through departments for improving his program, as opposed to working with the entire faculty.

Characteristics of Administrators

1. Utilization of the opinions of others. Teachers feel free to suggest ideas for this "Super Team" program. The program is carefully structured and organized; however, it was noticeable that teachers in the program offer suggestions for changing the program or developing new ideas for materials or procedures. The principal is highly selective in utilizing the opinions of others. He does value ideas that differ from his own, but will not accept ideas uncritically.

2. Democratic administration procedures. The teachers feel that the principal urges the use of processes consistent with best democratic practices. The principal constantly brings suggestions about changing the program before the faculty involved with the program, seeking their opinions and has them vote on whether they agree with the changes or not.

3. Experimental attitudes. The principal, according to the faculty, tends to try out new ideas only after careful study. He follows through on the basis of the result of experiment. That was very evident in this "Super Team" program because the program was carefully planned by the principal and faculty more than a year before the program was implemented.

4. Interests others in examining ideas. The principal encourages the examination of ideas that he thinks are important and shares many of the ideas that he has through meetings with the faculty and through bulletins.

5. Cooperation with non-educational groups. The principal, according to the faculty, is actively concerned with desires and interests of community groups, agencies, and organizations. He listens to the parents, is concerned about their concerns, and listens and works very diligently with the citizens advisory committee.

6. Implementation of new policies. The faculty feels that the principal moves surely and judiciously in effecting new policies.

Instructional Characteristics

1. Class size. Class size for the Milwee "Super Team" program was 15 students per class. The groups within each class ranged from 3 to the total class of 15.

2. Allocated vs. engaged time in reading. The relationship between the time allocated for reading and the amount of time in which the students were actively engaged in reading was average. The reading class that was observed spent approximately half of the class period actively engaged in reading, and the other half on a total group project which required student/teacher interaction.

3. Cognitive level of teacher questions. Questions within the program occurred at more than one level. Most of the questions, however, were concerned with knowledge of facts and information, with relatively few questions relating to a summary of inferential interpretation. It was obvious that a framework for concepts was being developed for the skills being taught in reading.

4. Time spent in reading. The amount of time that the students were actively engaged in reading in a 50-minute period in a language arts class was approximately 30 minutes.

5. Time spent in mathematics. The amount of time in which students are actively engaged in math during the school day is at least 50 minutes.

6. Organization of reading groups. Reading groups were organized primarily using an individual type program or a one-to-one relationship with the teacher. However, there were some groups of two to three students.

14. Group size in teaching reading. The students are taught reading basically on an individual basis with very little group interaction. However, it should be kept in mind that this particular program is broader than a reading program. It is a total curriculum program for low achievers. Reading is taught not only by the reading teacher but also by a language arts teacher. The reading program is an adaptation of the P.K. Yonge model.

15. Course goals. The course goals are determined primarily by the teacher; however, the teacher did admit that they were also determined by the tests that were administered; that is, the California Achievement Test and the Prescriptive Reading Inventory which are plugged in to the state-adopted program. The teachers involved in this program are not unlike most teachers throughout the State of Florida at this time. They were very concerned about the State Assessment Test and many of their goals in reading, math, and language arts were determined by the State Assessment Test.

16. Unit purpose known to teachers and students. The objectives or purpose of each unit in the classes that were observed were stated very clearly to the students. The teacher spent a considerable amount of time expressing to the students what she intended for them to learn in that particular unit.

17. Selection of learning tasks. It was clear that the tasks in which the pupils were engaged were determined by where they were in the curriculum and by an individual diagnosis of the pupil's problems.

18. Teacher knowledge of subject matter. It was very clear that the teachers' knowledge of the subject matter was very high.

19. Feedback to students. The feedback to students on their progress was given occasionally.

7. Teacher-directed learning activities. The percentage of the class day in which the student is involved in direct teaching was 75% or higher in the classes that were observed.

8. Teacher monitoring. The teachers monitored the students engaged in learning directly and often. Not only were the students monitored during the class time,but their learning activities and records were kept on a daily basis. The teachers knew each child, knew where each child was in terms of their skills, and knew their strengths and weaknesses.

9. Supplementary material. The amount of supplementary materials for English and reading was very high and for mathematics very low.

10. Teacher monitoring of student engaged time. The teachers were clearly aware of the actual engaged time of the students. This was observed consistently throughout the period. Students knew that they were to be busy working on their activities and did not have to be reminded by the teacher to stay on task.

11. Reading and/or math specialist. Specialists in reading and math are seldom or never used in the classroom.

12. Engaged time as a percent of assigned time. In terms of assigned time to a unit of learning, the student's actual engaged time for that unit was very high.

13. Supplementary materials. Supplementary materials were directly related to the learning tasks of the pupils. The activities flowed from the scope and sequence in the curriculum, and materials, available at this point, were relevant to the learning which was intended to occur in that class.

20. Pupil monitoring during classtime. Monitoring of the students was carried out by the teachers.

Classroom Atmosphere for Learning

1. Positive affect. In a typical five-minute period, the teacher expressed praise or other positive affect one to five times.

2. Criticism or negative affect. In the five-minute period that was observed, the teacher did not express any negative affect or feedback to the students at all.

3. Pupil non-task activity. More than a quarter, but less than half, of the pupils were typically whispering to each other or out of their seats moving about in a typical five-minute period.

4. Percent of class day in non-substantive activity. Pupils spent less than 10% of the classroom day moving about or talking to other pupils. The entire program was very structured, allowing students very little time to move about or talk to others.

5. Time spent on basic skills. More than half of the time in the classroom was spent on teaching or practicing basic skills.

6. Teacher response to pupil inability to answer. When the pupils were unable to answer the teacher's questions or unable to perform the task that the teacher expected, she typically asked someone else to respond.

7. Decisions about pupil learning tasks. The learning tasks were assigned by the teacher, but with some consideration of pupil preference.

8. Choice of pupil learning tasks. The learning tasks chosen for the pupils were within the students' abilities, but offered a slight degree of challenge for the students.

9. *Homework*. Homework was assigned regularly for each student.

10. *Teacher orientation toward "covering the material"*. Although the intent of the teacher is to cover the material, assignments were modified to adapt to the pupils' rate of learning.

11. *Peer tutoring*. Peer tutoring in the sense of peer involvement in games and activities in which the students correct each other during the course of a game are used infrequently. Peer tutoring is not an integral part of this program.

12. *Instructional materials*. Instructional materials are usually from a standard curriculum with occasional supplementation from the teacher-made materials.

13. *Teacher checking during pupil seatwork*. During seatwork activity, the teacher moved from student to student, checking to make sure each student understood what he was to be doing and explaining in detail when the student did not know.

14. *Pupil questions about work*. When pupils had questions about their work, the teacher answered their questions fully and directly, and verified that the pupil understood.

15. *Recitation*. When a pupil did not know the answer in recitation, the teacher routinely gave the answer or referred the question to another pupil.

16. *Percent of basic skills questioned answered correctly by pupils*. The percent of teacher basic skills questions that the pupils answered correctly was 85% or more; however, it probably did not exceed 95%.

17. *Pupil ideas*. In teaching the basic skills, the teacher expected pupil ideas to closely relate to the topic.

18. Feedback to pupils in recitation. In recitation, feedback to the pupils from the teacher was always immediate--so the pupil knew whether he was right or wrong.

Citrus County, Florida
Title I

General Description of the Program

During March, the district office and two schools in Citrus County were visited to observe Title I. Citrus County's Title I curriculum is limited to reading. The basic program has been established for a number of years and has had but a few minor changes. Few changes have been necessary because of the success Title I has achieved in Citrus County. Two years ago all Florida counties were assessed in reading; Citrus ranked second.

Citrus County's success in reading is related not only to instruction but also to socio-economic variables. There is a low percentage of Black students and few laborers in this rural county. Many people have moved there either because they were connected with the construction of the nuclear energy plant on Crystal River or because they preferred a bucolic setting. For a small, rural Florida county, Citrus has an unusual population.

Ed Murphy, in the central office, is in charge of Title I. According to the principals and teachers at Inverness Elementary and Inverness Middle schools, the rapport among Ed Murphy, the principals, and Title I staff is excellent. The teachers felt that way about their principals also. Citrus County presents a very collegial atmosphere with a lot of enthusiasm.

Parent Involvement

1. Parent involvement component. Both Inverness Elementary and Inverness Middle School have a Title I Parent Advisory Board.

2. Home visitation. There is no active home visitation component in Citrus County for compensatory education.

3. Parental involvement in decision-making. Parents are involved via the advisory board which meets several times a year. However, most grass

roots decisions are made by the faculty and administrators.

4. Parents as learners. There are no parents in Citrus County involved as learners as part of the Title I program.

5. Parents as volunteers. There is no volunteer program for parents as part of Title I.

6. Parents as paid employees. Title I in Citrus County does not use parents as paid employees in its program.

7. Other parental involvement. Parental involvement is limited to the advisory board and two meetings a year at each school to which parents of Title I children are invited.

8. Project personnel. School principals, Title I personnel and district administrators see to it that each Title I school has a parent advisory board as well as a couple of meetings a year to which parents of Title I children are invited.

9. Emphasis. Compared to other components of the program, little emphasis is placed on parent involvement.

10. Data. Both schools keep a list of advisory board members and when they meet. The number of parents that attend the semi-annual meetings is also kept.

Administration and Organization

1. Program evaluation. There is no formal evaluation by the community or parents of the compensatory Title I program. At the semi-annual meetings, parents are free to voice any comments concerning the program. Occasionally, parents call the principal, Title I teacher and coordinator of district administrators.

2. Community involvement in school policies. Little use is made of the community for compensatory education policy.

3. Rules and regulations. All federal and state rules and regulations concerning compensatory education are observed. Additional rules are established by the faculty and administration.

4. Community involvement in changing the curriculum. Parents are used minimally for changing the compensatory curriculum.

5. Community involvement in planning. The community is used very little in faculty meetings and planning.

6. Teacher opposition. The administrator tries to create an atmosphere where the faculty feels free to question decisions, and where they might seek a better solution together.

7. Harmful teacher work. No comments about such were found.

8. Pupil achievement standards. Each pupil is diagnosed to determine his or her reading level. Progress reports and futther testing informs the student and faculty if reading at grade level has been achieved.

9. Work with teachers to change course offerings. Faculty members are encouraged to examine new materials and methodologies. If, upon evaluation, current course offerings would be improved by changes either in style or materials, they are tested, if feasible.

10. Teacher suggestions for improving the program. If a teacher suggests a change in the Title I program, all compensatory staff discuss and evaluate it.

Characteristics of Administrators

1. Utilization of opinions of others. The rapport between the principal and Title I staff in both the elementary school and middle school visited was excellent. The teachers feel their opinions are sought and considered.

2. Democratic administration procedures. Both principals appear to be very democratic in their management styles with the Title I staff.

3. Experimental attitude. While Citrus County schools have high success in reading with an established program, the principals and central office administrator seem willing to study new ideas. If these new methods seem worthwhile, they will experiment.

4. Interests others in examining ideas. The principals encourage examination of new ideas through critical analysis of those ideas.

5. Cooperation with non-educational groups. Both principals seemed aware of community interests and activities, although it was said there is little or no active community concern about Title I.

6. Implementation of new policies. Because of the success of Title I in Citrus County, there are few new policies concerning it. Nevertheless, it was felt that the administrators would move surely and judiciously in effecting new policies.

Instructional Characteristics

1. Class size. Class size varies between 3 and 10 students with a teacher. There is also usually an aide for every two Title I teachers.

2. Allocated vs. engaged time in reading. A high percentage of class time is spent on reading and related activities.

3. Cognitive level of teacher. Teacher questions seemed tailored to the students. In the elementary school, questions sought knowledge of facts and information, while in the middle school questions were designed also to have students synthesize.

4. Time spent in reading. Between Title I classes and the regular classroom, students spend more than 30 minutes a day actively engaged in reading.

5. Time spent in mathematics. There is no Title I math program.

6. Organization of reading groups. Reading groups are usually composed of two or three pupils.

7. Teacher-directed learning activites. Approximately 75% of the time is spent in direct teaching, since the teacher frequently is floating from student to student.

8. Teacher monitoring. Teachers and aides are directly and frequently monitoring students.

9. Supplementary material. An abundance of material is available for supplementary instruction.

10. Teacher monitoring of student engaged time. Teachers prepare a lesson plan every day for each student. All work gets immediate feedback, which helps the student know how he is doing and helps the teacher know not only how the student is doing, but also what he spends his time doing.

11. Reading and/or math specialist. All the Title I teachers visited were certified reading specialists.

12. Engaged time as a per cent of assigned time. Title I classes seem to be well-organized and disciplined, so that the time allocated to a unit is mostly used for that unit.

13. Supplementary materials. Most supplementary materials are directly related to the task assigned. For any students interested, however, books are available to check out for home reading.

14. Group size in teaching reading. Reading is taught individually, with group interaction.

15. Course goals. Each student's needs are determined and goals for these individuals are prescribed as a result of testing.

16. Unit purpose known to teachers and students. For a unit assigned to a student, objectives are clearly stated and feedback as to meeting these objectives is immediate.

17. Selection of learning tasks. Each student's learning tasks are determined by individual diagnosis.

18. Teacher knowledge of subject matter. Every Title I teacher is certified in reading. Each is extremely knowledgeable on the subject.

19. Feedback to students. Students receive immediate feedback. For each task assigned, students are told frequently and quickly how well they are doing.

20. Pupil monitoring during class time. Students are continually monitored by the teacher and aides.

Classroom Atmosphere for Learning

1. Positive affect. Within a normal 5-minute period, each pupil receives some kind of positive affect.

2. Criticism of negative affect. Typically the classrooms had a positive atmosphere; however, negative affect occurred perhaps once or twice during a typical 5-minute period.

3. Pupil non-task activity. Less than a quarter of the pupils are whispering or running around during a normal 5-minute period.

4. Per cent of classroom day in non-substantive activity. Each student knows his tasks for each day. Upon entering the classroom, students start working immediately. Less than ten per cent of class time is spent socializing with other students.

5. Time spent on basic skills. Title I classes spend considerably more than half of classroom time either being taught or practicing reading skills.

6. Teacher response to pupil inability to answer. Almost always a teacher reacted with patience and acceptance to a student who was unable to perform tasks or answer questions.

7. Decisions about pupil learning tasks. Each pupil is diagnosed individually and, from that diagnosis, teachers group the pupils into assigned task groups.

8. Choice of pupil learning tasks. Most tasks are chosen to assure success.

9. Homework. Homework is rarely assigned.

10. Teacher orientation toward "covering the material." Although the intent is to "cover the material," assignments are modified to adapt to pupils' rates of learning.

11. Peer tutoring. Peer tutoring is never used.

12. Instructional materials. Usually instructional materials are from a standard curriculum, but there is supplementation from teacher-made materials.

13. Teacher checking during pupil seatwork. Teachers check students' work continually to assure that they understand the assignments and are making progress.

14. Pupil questions about work. In most cases, the teacher answers directly and verifies that the pupil understands. There are situations, however, when the teacher "hints" or refers the pupil to another source.

15. Recitation. Usually the teacher "stays with" the pupil until he/she answers correctly, but sometimes gives the answer or refers it to another pupil.

16. Per cent of basic skill questions answered correctly by pupils. More than 85% of the basic skill questions were correctly answered.

17. Pupil ideas. In most cases, teachers expect pupils' ideas to be targeted on the topic.

18. Feedback to pupils in recitation. Students receive immediate feedback on their responses. That does not mean he is told only that he is right or wrong. Some situations were created by the teacher in which the student evaluated his response with the teacher.

Moore-Mickens School
Dade City, Florida

General Description of the Program

Upon the recommendation of Mr. Jack Waters, Director, Migrant Education Section, Department of Education, the Moore-Mickens Middle School in Dade City, Florida was visited as an exemplary program in migrant compensatory education.

Dade City, located in Pasco County, is a rural community which specializes in citrus harvest or food processing by two local plants. For the approximately 600 migrant worker families in the area, picking fruit or working in the food processing plant provide the major sources of employment. Picking strawberries or cutting grass sod also provide some limited employment. This employment is seasonal and, except for about 15% of the families, the migrants arrive in Dade City about November and leave late in March. School age children attend school during this time period. A number of elementary age children are not enrolled in the schools, and a constant effort is made to locate these children and get them enrolled in school. Teen-age migrant children often leave school to aid the family in earning money picking in the citrus groves. The percentage of migrant children who graduate from high school is low. The vast majority of the migrant families are Mexican-American and many of the parents do not speak English. The remaining migrant families are Black.

The organization of the schools in Dade City is unique in its use of the physical plant. Most children attend Cox Elementary School for grades 1-5. They then go to Moore-Mickens Middle School for grades 6 and 7. After completing grades 8 and 9 at Pasco Junior High School, they go on to high school. The focus of this visit was on Moore-Mickens Middle School, which enrolls approximately 860 students in grades 6 and 7. Most of the migrant children in these grades are at Moore-Mickens School. Also visited was Cox Elementary School, whose principal, Mr. Robert Hatfield, was very knowledgeable of the educational progress and problems of migrant children and supervises programs to assist these children such as Title I, migrant education and compensatory education.

The following personnel were visited and provided most of the information contained in this report on the Moore-Mickens Middle School:

Mrs. Jeanette Reilly, Director, Migrant Education Program

Mr. Frank Compano, Language Arts Supervisor, Region IV, Migrant Education

Sister Carmen, Home-School Coordinator, Migrant Program

Mr. Melvin Dennard, Principal, Moore-Mickens Middle School

Mr. Armando Ruiz, Teacher, Moore-Mickens Middle School.

The Migrant Compensatory class was staffed by Mr. Armando Ruiz, teacher, and four full-time tutors. There were 15 students in the class--1 Black, 3 White and 11 Mexican-American. The class is a "pull-out" arrangement for one period a day, in lieu of a class in physical education. All students also attended the regular classes, including a class in language arts. The migrant compensatory class focused upon reading, grammar, spelling and oral use of language. The class was taught entirely in English and none of the tutors spoke Spanish. There was one tutor for every 3-5 students working on an individualized basis with Mr. Ruiz, who provided resource help and organized the sequence of the class. Also visited was the regular language arts class staffed by a teacher and one aide. This class was a behavior modification and competency based. Evaluation in both classes was done using a list of competencies developed by Pasco County and the publisher of the texts used. Charts were kept on each student for his/her progress.

Parent Involvement

There is little or no parent involvement. However, the home-school coordinator checks to see if children are in school, but no organized parent group exists.

Administration and Organization

1. Program evaluation. No formal attempt to do this since the central office evaluates the program.

2. Community involvement in school policies. The community is not involved.

3. Rules and regulations. The principal sets the rules for the entire school.

4. Community involvement in changing the curriculum. Parents are not involved.

5. Community involvement in planning. Community is not used.

6. Teacher opposition. The principal listens, but makes the decisions.

7. Harmful teacher work. The principal is experienced in working in the system and comes at things obliquely.

8. Pupil achievement standards. No formal attempt in compensatory program for principal to set standards.

9. Work with teachers to change course offerings. Principal is sold on program and encourages rest of staff to be supportive.

10. Teacher suggestions for improving the program. Principal works hard, but has too much to do.

Characteristics of Administrators

1. Utilization of opinions of others. Principal asks for guidance to support program. He does not interfere with program.

2. Democratic administration procedures. Democracy, if enough time. If not, he (the principal) makes decisions.

3. Experimental attitudes. Principal is cautious and conservative.

4. Interests others in examining ideas. The principal talks with individuals in the community for input in changing curriculum.

5. Cooperation with non-educational groups. The principal is a realist, and knows how to keep a community happy.

6. Implementation of new policies. The principal likes the status quo.

Instructional Characteristics

1. Class size. There is a total of 15 students in four groups.

2. Allocated vs. engaged time. The relationship between the time allocated to reading and the amount of time in which the students are actively engaged in reading is free and flexible.

3. Cognitive level of teacher questions. Questions asked by the teacher are designed to elicit knowledge of facts and information.

4. Time spent in reading. The amount of time in which the students are actively engaged in reading during the school day is 20-30 minutes.

5. Time spent in mathematics. The students are actively engaged in mathematics for 20-30 minutes.

6. Organization of reading groups. Students are organized in groups of three, but each pupil receives individual reading assignments with teacher interaction.

7. Teacher-directed learning activities. 25-50% of the school day is involved in "direct teaching" (teacher-directed).

8. Teacher monitoring. The teacher does not monitor directly, but is available as a resource person.

9. Supplementary material. The amount of supplementary material used in teaching is moderate, but much of it is not often used.

10. Teacher monitoring of student engaged time. The teacher watches to see that students are working on the lesson.

11. Reading and/or math specialist. Specialists in reading and/or mathematics are seldom or never used in class.

12. Engaged time as a per cent of assigned time. In terms of assigned time to a unit of learning, the pupils' actual engaged time for that unit is average (50%).

13. Supplementary materials. The supplementary materials used are somewhat related, and they expand the task.

14. Group size in teaching reading. In teaching reading, the students are taught individually with group interaction.

15. Course goals. The goals of the course are drawn primarily from a curriculum guide.

16. Unit purpose known to teachers and students. The objective or purpose of the unit being taught is clear to the teacher, but not to the students.

17. Selection of learning tasks. The learning tasks for the students are determined by general prescriptions for remediation.

18. Teacher knowledge of subject matter. The teacher's knowledge of the subject matter being taught is average.

19. Feedback to students. The feedback to the students of their progress is done on a regular basis.

20. Pupil monitoring during classtime. The students are not monitored during class time.

Classroom Atmosphere for Learning

1. Positive affect. Praise or other positive affect is expressed by teacher or a pupil one to five times in a typical 5-minute period.

2. Criticism or negative affect. Criticism or other negative affect is expressed one to five times by a teacher or a pupil during a typical 5-minute period.

3. Pupil non-task activity. More than a quarter but less than half of the pupils or groups of pupils are typically whispering to each other or are out of their seats moving about in a typical 5-minute period.

4. Per cent of classroom day in non-substantive activity. More than 10% but less than 25% of the school day is spent by the typical pupil moving about or talking to other pupils.

5. Time spent on basic skills. More than half of the time in the classroom is spent by the typical pupil in activities involving the basic skills.

6. Teacher response to pupil inability to answer. Since the learning here is individualized, the teacher stays with the pupil until the question is answered.

7. Decisions about pupil learning tasks. Decisions about pupil learning tasks are assigned by the teacher.

8. Choice of pupil learning tasks. To the degree that the teacher chooses pupil learning tasks, (s)he chooses them to be within the pupils' learning abilities, but to offer a slight degree of challenge.

9. Homework. Homework is almost never assigned.

10. Teacher orientation toward "covering the material." The teacher's orientation toward "covering the material" is to progress in small steps, only as students have learned material well, or even overlearned it.

11. Peer tutoring. Peer tutoring is never used.

12. Instructional materials. Instructional materials are usually from a standard curriculum, but with occasional supplementation from teacher-made materials.

13. Teacher checking during pupil seatwork. When pupils are doing seatwork, the teacher systematically checks to assure that pupils understand and are making progress.

14. Pupil questions about work. When pupils have questions about their work, the teacher answers fully and directly, and verifies that the pupil understands.

15. Recitation. In recitation, when a pupil fails to answer or says he doesn't know, the teacher "stays with" the pupil with hints or additional questions until the pupil answers.

16. Per cent of basic skill questions answered correctly by pupils. 75-85% of the teachers' basic skills questions are answered correctly by pupils.

17. Pupil ideas. In teaching basic skills, the teacher expects pupil ideas to be closely related to the topic.

18. Feedback to pupils in recitation. In recitation, feedback to the pupil from the teacher is, almost always, immediate, letting the pupil know whether he is right or wrong.

Palm Beach County Alternative Education Program
Roosevelt Junior High School

General Description of the Program

This program includes five classrooms with a teacher and CETA aide in each. Fifteen children is the maximum size and students rotate through 40 minute periods, five periods per day in language arts, math, science, and social studies. The program operated on a pilot basis last year and this is the first full year of operation. It has attracted attention through presentations at conferences and by teacher "word of mouth."

The program has a total budget of approximately $4,000, $200 of which is from Alternative Education sources. The rest is from local school resources. Its secret of success may be the fact that it was locally developed and has a strong, assertive principal with ego involvement in it. This principal has staffed the program with the school's best teachers (department chairmen). The principal lets the teachers make the decisions, however, as a planning team of which she is a member.

In evaluation, the program has developed 10 objectives. Regarding pupil achievement it will be noticed that the program used the Stanford Achievement Test, rather than the Functional Literacy Test, thus it avoids letting minimums become maximums. It was indicated by the Project Director that the county staff tried to get them to lower their criterion levels in their objectives, but they refused to do so. Thus, the program aims high with good personnel and strong administrative support.

As far as classroom instruction and affect are concerned, the Direct Instruction approach was clearly in evidence: clear objectives combined with a business-like approach with neutral affect. "Lower level" objectives were pursued and instruction varied from being totally individualized on some days and group-centered on others. Always, however, the activity is very task-centered, using handouts that cover the full gamut of Gagne's learning hierarchy.

The principal and project director identified parent involvement as their main concern, but indicated that, if teacher-wide money is available, they plan to begin a home visitation program next year. Other areas of weakness include inadequate funding, and they wish assistance in the area of evaluation.

Parent Involvement

1. Parent involvement component. Parent involvement is intended, but not yet organized and evaluated. Current procedures involve parents in an Open House, individual parent conferences, and the use of a special report card.

2. Home visitation. Home visits will be added to the parent involvement component next year, if funds become available to hire two projected aides.

3. Parent involvement in decision-making. Currently parents are involved in decision-making through the School Advisory Council.

4. Parents as learners. Parents are not now involved as learners.

5. Parents as volunteers. There appears to be no need for the parents to serve as volunteers, because the aides are present to assist teachers. The project director indicated that volunteer help was not neeeded in addition to the aides in classrooms of 15 children.

6. Parents as paid employees. Because all supplementary employees are sent to the school by CETA, parents are not involved in the program as paid employees.

7. Other parent involvement. With the exception of the Open House, parent conferences, etc. mentioned above, parents are not involved in other activities at Roosevelt Junior High School.

8. Project personnel. Primary staff responsibility for conducting parent involvement activities resides with the principal and the project director. E. J. Weston is the current Principal, and K. J. Meehan, the Project Director, is a teacher under the building principal.

9. Emphasis. In this program, parent involvement has less emphasis placed upon it than other components. In the future, however, this might change.

10. Data. The only data collected are from parent conferences. Currently, no evaluation procedures have been planned or implemented to analyze the data.

Administration and Organization

1. Program evaluation. An evaluation system for the school's compensatory education program has been worked out and is stated as 10 objectives.

2. Community involvement in school policies. The total community has access to input in the forming of school policy. The School Advisory Council, individuals, and parents participate with teachers and pupils in workshops.

3. Rules and regulations. Following the establishment of policy, rules and regulations concerning compensatory education are formed by faculty with the principal following a "hands off" policy.

4. Community involvement in changing the curriculum. The standing advisory council is the principle input unit from the community for changing the school curriculum. Most community participation occurs through extra curricular activities such as band, sports, clubs, etc.

5. Community involvement in planning. The School Advisory Council, the band, or choral parent organizations function in pre-planning and regular faculty meetings.

6. Teacher opposition. When a teacher voices opposition to administrative ideas or judgments about compensatory education instruction methods, the administrator is careful not to criticize, but to help the teacher feel free to do this and seek a better solution to the problem together. However, when it is necessary or when the principal feels that a position must be taken, it is pointed out that although democracy calls for differences, there are times when a principal must make a decision.

7. Harmful teacher work. A useful approach to deal with a teacher whose way of work is felt to be harmful to the program has been developed. This approach employs three steps: (1) a conference is held with the teacher in question; (2) the teacher is observed working in the classroom; and (3) peer counseling by other teachers is facilitated.

8. Pupil achievement standards. This program has developed 10 objectives. Regarding pupil achievement, it will be noted that the program used the Stanford Achievement Test, rather than the Literacy Test, thus it avoids letting minimums become maximums.

9. Work with teachers to change course offerings. The administration seeks to work with teachers to bring about improvement in instruction through close supervision of classroom teaching. Teachers are further provided released time to visit other classes and projects. The administration indicated that they would provide help in identification of superior students by teachers as one effort to bring about changes in course offerings or content.

10. Teacher suggestions for improving the program. Teacher suggestions are supposedly brought before the faculty, but it was unclear which of the faculty would be involved, since total faculty receive general information only.

Characteristics of Administrators

1. Utilization of opinions of others. The principal consistently seeks and considers the opinions of others. He sometimes values ideas that differ from his own, but he is highly selective in utilizing opinions.

2. Democratic administration procedures. The principal uses any expedient method available to attain a predetermined end.

3. Experimental attitude. The principal demonstrates an experimental attitude by trying out new ideas after careful study, and follows through on the basis of results of experimentation.

4. Interests others in examining ideas. The principal encourages the examination of ideas that he thinks are important.

5. Cooperation with non-educational groups. The principal seems aware of and actively concerned with desires and interests of community groups, agencies, and organizations.

6. Implementation of new policies. He moves surely and judiciously in effecting new policies.

Instructional Characteristics

1. Class size. The total size for each compensatory class at Roosevelt Junior High School is 15 students.

2. Allocated vs. engaged time in reading. Fifty percent of the time allocated to reading is spent in activities in which the students are actively engaged in reading.

3. Cognitive level of teacher questions. Questions asked by the teacher are designed to elicit low level responses. Most questions focus on knowledge of fact and information or require a summary or interpretation.

4. Time spent in reading. Students are actively engaged in reading 20-30 minutes per day. This is 50% of the time in the project director's class.

5. Time spent in mathematics. Students are actively engaged in mathematics 30 minutes or more per day. The project director, however, indicated 20% of the time or 40 minutes per day for participating groups.

6. Organization of reading groups. Individualized instruction alternating with groups of six or more students is the major pattern used in the program. Some of the teachers use two days of one approach and three days of the other.

7. Teacher-directed learning activities. Seventy-five percent or more of the class day is involved in "direct teaching."

8. Teacher monitoring. The teacher monitors students engaged in learning directly and often. Sometimes, aides monitor learning as well as teachers.

9. Supplementary material. The amount of supplementary material used in teaching in the program is high.

10. Teacher monitoring of student engaged time. The teacher seldom or never keeps track of the actual engaged time of students.

11. Reading and/or math specialist. Specialists in reading or mathematics are seldom or never used in the class.

12. Engaged time as a percent of assigned time. In terms of assigned time to a unit of learning, the students' actual engaged time for that unit is 50%.

13. Supplementary materials. The supplementary materials used are directly related to the task.

14. Group size in teaching reading. In teaching reading, the students are taught using three grouping approaches: (1) individually, without group interaction, (2) in whole class separated into three groups, and (3) on occasion they are instructed individually, with group interaction.

15. Course goals. The goals of the courses are developed by teachers in terms of county office pupil program plans.

16. Unit purpose known to teachers and students. Since three of four teachers do not state the objectives or purposes of the unit taught, it is difficult to know if the objectives are clear to the students or not.

17. Selection of learning tasks. The learning tasks for the students are determined by the results of a somewhat individualized diagnosis.

18. Teacher knowledge of subject matter. The teacher's knowledge of the subject matter is high.

19. Feedback to students. The feedback to the students is done on a regular basis.

20. Pupil monitoring during class time. The students are monitored during class time primarily by the teacher and the aide.

Classroom Atmosphere for Learning

1. Positive affect. Within a typical five-minute period, the teacher or a pupil expresses praise one to five times.

2. Criticism or negative affect. Within a typical five-minute period, negative affect is expressed 6-15 times. More negative affect is used by the science and math teachers, while little negative affect is used by compensatory director or teacher.

3. Pupil non-task activity. Less than 1/4 of the pupils are typically whispering to each other or are out of their seats moving about during a typical five-minute period.

4. Percent of classroom day in non-substantive activity. Students spend less than 10% of their school day moving about or talking to other pupils.

5. Time spent on basic skills. Between 33% and 50% of the typical classroom time is spent practicing basic skills.

6. Teacher response to pupil inability to answer. While three of the teachers almost always respond with patience and acceptance, the math teacher usually responds to a student answering incorrectly in this manner, but sometimes with reproof.

7. Decisions about pupil learning tasks. Decisions about pupil learning tasks are assigned by teachers, but with some concern for pupil preferences.

8. Choice of pupil learning tasks. To the degree that the teacher chooses pupil learning tasks, (s)he chooses them so as to be within pupils' abilities, but to offer a slight degree of challenge.

9. Homework. Homework is assigned three nights per week in English and occasionally in other classes.

10. Teacher orientation toward "covering the material". Although the intent of the teachers in the program is to "cover the material," assignments are modified to adapt to pupils' rates of learning.

11. Peer tutoring. One of the teachers uses peer tutoring often, while the others employ it only infrequently.

12. Instructional materials. The instructional materials are usually from a standard curriculum, but they are occasionally supplemented by teacher made material. Two series are used in the program: (1) Learning Skills Series: Language Arts, McGraw-Hill, Webster Division, and (2) Basic Education: Reading, Follett Publishing Company.

13. Teacher checking during pupil seatwork. When pupils are doing seatwork, the teacher checks often, but sometimes relies on pupils to come to the teacher if they have a problem.

14. Pupil questions about work. When pupils have questions about their work, the teacher answers fully and directly and verifies that the pupil understands.

15. Recitation. In recitation, when a pupil fails to answer or says he doesn't know, the teacher routinely gives the answer or refers the question to another pupil.

16. Percent of basic skills questions answered correctly by pupils. Seventy-five percent to 84% of the teacher's basic skills questions are answered correctly.

17. Pupil ideas. In teaching basic skills, the teacher expects pupil ideas to be closely related to the topic.

18. Feedback to pupils in recitation. In recitation, feedback to the pupil from the teacher is almost always immediate, letting the pupil know whether he is right or wrong.

Santa Fe Community College
Gainesville, Florida

General Description of the Program

The Individualized Manpower Training System (IMTS) is a vocational compensatory education program for disadvantaged persons. It is a system designed to deliver basic skills, employability behaviors, personal skills and work explorations for academically disadvantaged persons to enable them to succeed in a vocational education.

Santa Fe's IMTS is not limited to vocational students; vocational and academic students are integrated under this methodology. Reading is the thrust of IMTS basic skills at Santa Fe; complementary skills and employability behaviors are not offered.

Upon entering Santa Fe, freshmen are given an assessment test which is used for advisement. As a result of this test, some freshmen are counseled to take the IMTS reading program. Others enter the program by referrals from vocational or academic instructors, or by self-referral. Students may take IMTS reading for college credit or they may audit. Credit is offered for a number of reasons:

1. Students who are receiving funds from the Veterans Administration must be registered as full-time.
2. Students under work-study must be registered as full-time.
3. Students who need incentive to improve their reading skills.

There is a maximum number of credit hours that a student may receive for reading. Three courses are offered for credit: REA-1000 for a reading level below 6.5 (sixth grade, 5th month), REA-1105 for a reading level between 6.5--8.9, and REA-1106 for a reading level of 9.0 or above. On the average each term, 600 students are in REA-1000, 300 are in REA-1105 and

100 are in REA-1106. Approximately half of the students in each course are vocational. The lowest reading level, below 6.5, is heavily composed of black students, whereas the highest level, above 9.0, is mainly white students.

Pat Smittle is the Chairperson for the Learning Laboratory which houses the IMTS program. For IMTS reading there are four instructors, each of whom has a teaching assistant and an aide.

Reading is the crux of IMTS at Santa Fe. Whether a student is taking IMTS reading for credit or not, the first step upon entering the program is a diagnostic reading test, the Test for Adult Basic Education (TABE). TABE provides the instructors with an item analysis of skills the student needs and skills he already possesses. From the results of TABE, a prescription is written for the student. Remediation begins in the areas needed. Progress tests are administered throughout the remediation process. Immediate feedback from the progress tests is provided to inform the student of his current standing.

Most students gain at least half a year in reading during one course. Quite a few increase their reading level by a year or two in the same period of time.

Parent Involvement

Parent involvement is not a part of this program, nor is it encouraged. Students are at least seventeen and at this point of their educational career, the community college level, they are very motivated.

Administration and Organization

1. Evaluation. As mentioned in the introductory remarks concerning Santa Fe's IMTS program, the TABE and progress tests are used for diagnosis prescription and feedback. TABE, a norm referenced test, is administered at the end of the course. Progress tests provide immediate evaluation for students and teachers on a continual basis in the IMTS program.

2. Community involvement in school policies. There is no community involvement with Santa Fe's IMTS program.

3. Rules and regulations. All rules and regulations mandated by both the state and federal governments are followed. Other rules for the program, and the lab in general, are those created by lab personnel and the lab chairperson. Any rules which affect other Santa Fe faculty members are made in conjunction with them.

4. Community involvement in changing the curriculum. None.

5. Community involvement in planning. The community is not involved in Santa Fe's IMTS program curriculum changes or planning.

6. Teacher opposition. Pat Smittle provides an environment that not only encourages a free exchange of ideas but also encourages constructive criticism. When an instructor feels critical of a policy or an idea he may offer alternatives, discuss it with other personnel at a meeting and feel free to do so.

7. Harmful teacher work. The chairperson would discuss the problem with the instructor, assistant or aide and try to rectify it.

8. Pupil achievement standards. TABE is administered at the beginning and the end of the program to determine a student's standing and needs. Throughout the program, students take progress tests to provide immediate feedback on their efforts.

9. Work with teachers to change course offerings. The IMTS reading program's intent is to improve a student's reading level. Rather than change course offerings, IMTS provides for a prescribed program for each student.

10. Teacher suggestions for improving the program. The reading staff at Santa Fe work closely together and are encouraged by the lab to suggest and implement possible improvement.

Characteristics of Administrators

1. Utilization of opinions of others. Opinions of others are actively sought and considered.

2. Democratic administration procedures. A democratic administration was voiced by all instructors interviewed.

3. Experimental attitudes. The program itself is experimental, although staff's feeling is that the chairperson was willing to examine new ideas and, if appropriate, test them.

4. Interests others in examining ideas. The program is already established. However, any innovations which would increase the productivity are encouraged.

5. Cooperation with non-educational groups. There is none currently in the IMTS program.

6. Implementation of new policies. New policies would be implemented with the cooperation of the entire staff. The administration of the IMTS program appears to be very collegial.

Instructional Characteristics

1. Class size. Classes range from 15 to 20 students. Each instructor has an aide and a teaching assistant, so students may receive individual attention.

2. Allocated vs. engaged time in reading. Most of the class time is spent in reading activities. Students at the college level are usually more motivated and disciplined than elementary and secondary level students.

3. Cognitive level of teachers' questions. The type of response sought depends on the type of skills the student is in the process of acquiring. For some students just a list of facts is what a teacher's questions are designed to elicit; for higher level students, e.g., REA-1106, synthesis is sought.

4. Time spent in reading. Actual class time for each course is three times a week for approximately 50 minutes. The lab, however, is set up so students may come in anytime. While under observation, the lab had many students who were here during their free time.

5. Time spent in mathematics. The crux of IMTS at Santa Fe is reading; therefore math was not examined.

6. Organization of reading groups. Students are assigned to the class based on reading levels, i.e., 4.5-6.5, 6.6-8.9, and 9.0 up. Within these groupings, the students are further separated into the skill areas that were indicated on the TABE. Usually, a few students fall in the same skill group, but a one-to-one relationship can occur also.

7. Teacher-directed learning activities. The teacher spends between 50 and 75% of his/her time in direct teaching, although frequently that is split among the students.

8. Teacher monitoring. Since each IMTS reading class has an instructor, an assistant and an aide, as well as occasional students on work study, pupils are monitored directly.

9. Supplementary material. Reading machines, books and various teaching aids are used in Santa Fe's IMTS program. In cases where materials do not exist in the particular skill desired, the instructors often create their own.

10. Teacher monitoring of student engaged time. The actual time students spend in activities is not kept; rather, constant monitoring and examination of their work keeps the teacher informed of the use of class time.

11. Reading and/or math specialist. All the instructors are certified reading specialists in the IMTS reading lab. Some of the aides are also reading specialists (i.e., that have master degrees in reading).

12. Engaged time as a per cent of assigned time. An extremely high percentage of time assigned to a skill unit is spent on that unit. Most of the students in Santa Fe's IMTS program seem to be seriously trying to improve their reading skills. This explains why so many pupils work in the lab during their free periods.

13. Supplementary materials. The reading lab is well-equipped with materials. For the tasks assigned, there are supplementary materials directly related.

14. Group size in teaching reading. After students take the TABE and it is determined whether they should be placed in REA-1000, -1105 or -1106, they are grouped in reading according to skill areas. If several students require instruction on a skill area, they are taught in a group. Students are taught individually in cases where they were the only class members diagnosed as lacking in a particular skill area.

15. Course goals. Each student has his own particular goals as dictated by his/her performance on the TABE.

16. Unit purpose known to teachers and students. Students are informed of the results of the TABE. The TABE dictates the skill areas that must be examined. Students progress through the skill units with objectives being explained clearly at the beginning of each unit.

17. Selection of learning tasks. Each student's learning tasks are the result of individual diagnosis.

18. Teacher knowledge of subject matter. The college instructors in the IMTS program are well-prepared and well-informed in reading. All instructors are certified in reading, as well as several of the teaching assistants.

19. Feedback to students. Regularly, students are given feedback on their work. This is done by both the teacher and by progress tests.

20. Pupil monitoring during class time. Students are monitored during class by peers, aides, assistants and/or instructors during class time.

Classroom Atmosphere for Learning

1. Positive affect. In a typical five minute period, there was little positive affect expressed. During most of the class time students were motivated by success in the various skill units and the interest in work that college level students usually have.

2. Criticism or negative affect. No negative affect or criticism occurs during a typical five minute period.

3. Pupil non-task activity. Students were intensely involved with the reading tasks assigned. That, coupled with their age and education level, created a situation for little or no time consumed away from non-directed studies.

4. Per cent of classroom day in non-substantive activity. Less than 10 per cent of the class period is spent in conversation with other students. The conversations that do take place usually occur when students enter the class and get their materials and again when they put them away.

5. Time spent on book skills. More than half of class time is spent on basic skills.

6. Teacher response to pupil inability to answer. Invariably, the instructors, teacher aides and assistants deal with the students patiently.

7. Decisions about pupil learning tasks. Learning tasks are assigned by the teacher with consideration of the pupils' interests. At the various reading levels, a number of books for outside reading are available. Pupils choose their books within the level.

8. Choice of pupil learning tasks. The teacher chooses learning tasks depending on the student's needs at the time. A teacher will give a task to assure success (within the student's abilities), but with a degree of

challenge will be assigned. The student's individual diagnosis determines the teacher's type of task assignment.

9. Homework. Students are infrequently given homework assignments.

10. Teacher orientation toward "covering the material." The material that a student needs to cover is determined by the TABE. While teachers develop a course of study for each pupil within the alloted time, frequently that course is modified to adapt to the students' rate of learning.

11. Peer tutoring. Peer tutoring is used often. Work study students assist the reading coaches.

12. Instructional materials. Instructional materials are usually from a standard curriculum, however there is supplementation with teacher-made materials.

13. Teacher checking during pupil seatwork. When pupils are individually working at their desks, the teacher continually checks to assure that they understand their assignments and are making progress.

14. Pupil questions about work. A teacher's response to pupils' questions varies as to the situation. Usually the teacher's response is direct and the teacher verifies that the pupil understands. On some occasions, the teacher directs the student to a source, or hints if that is determined what is needed.

15. Recitation. When a student answers incorrectly, the teacher usually "stays with" the pupil with hints on additional questions until the pupil answers. In some cases, however, the teacher will give the correct answer.

16. Percentage of basic skill questions answered correctly by pupils. Approximately 85% of basic skill questions are answered correctly.

17. Pupil ideas. The teacher expects the pupils' ideas to be related to the topic.

18. Feedback to pupils in recitation. The teacher during a recitation exercise lets the pupil know immediately whether the answer is right or wrong.

APPENDIX B

A Comparison of the Characteristics of Exemplary Compensatory Education Programs with the District Planned Programs of the State Compensatory Education Program

APPENDIX B

A Comparison of the Characteristics of Exemplary Compensatory Education Programs with the District Planned Programs of the State Compensatory Education Program

Introduction

In this appendix, a comparison will be made between the characteristics of exemplary compensatory programs, as specified in the text of this report, and the planned programs for compensatory education of the sixty-seven school districts for the State of Florida. It should be stated from the outset that this is not an evaluation of these programs. Rather, it is an attempt to ascertain from the information available on the planned programs, which of the characteristics of exemplary compensatory programs can be found in the State of Florida. Further, because of statutory requirements, and the need for certain information by the Florida Department of Education, the compensatory education planned programs provide a broad overview of programs with those specifics required by the Department of Education. Therefore, the information in this appendix cannot provide a full comparison of the characteristics with state compensatory programs. It is rather a first step in ascertaining which of the characteristics are operating in state compensatory programs.

Procedure

In order to simplify the process, a generalized list of characteristics for each of the four areas (Administration and Organization, Home-School

Relationships, Instructional Organization and Procedures, and Classroom Environment), identified by the literature search, was developed. This list consisted of a series of questions (for each area) which then were applied to the sixty-seven program plans. The questions were written to ascertain whether or not a specific characteristic was present; there was no attempt to establish the degree to which a given characteristic might be present. After these questions were applied to each of the sixty-seven programs, the answers were tabulated to provide the general overview of all sixty-seven programs in the State of Florida.

The following are the questions, generated from the characteristics, which were applied to each of the sixty-seven programs:

I. Administration and Organization

- A. Is there evidence of appropriate planning for the compensatory program?
    1. Are there specific, clear academic objectives in the program?
    2. Were the faculty and staff involved in the planning of the program?
    3. Was there parent and community involvement in the planning of the program?
    4. Was there parent and community involvement in the implementation of the program?
    5. Was there parent and community involvement in the evaluation of the program?
- B. Was there a component for the involvement of key compensatory staff personnel in working with individual teachers?
- C. Was the program structured to stress a sequential order and sequential activities?

D. Was there an inservice program for compensatory teachers?

E. Was the class size between 1:1 to 1:15 adult to student ratio to allow for optimum, intensive treatment of children?

  1. Was there a flexibility in class size (see III, Instructional Organization and Procedures, Questions F.1 to F.4 below)?

F. Was there continuous, on-going evaluation of the activities of the program?

  1. Were formal evaluation methods used?

  2. Were informal evaluation methods used?

  3. Was the structure of the program monitored?

  4. Was there an allowance on the program plan for modification of the program, if it was necessary?

II. Home-School Relationships

A. Was there a parent involvement component in the compensatory program? Did it involve the parent as:

  1. audience?

  2. volunteer?

  3. paraprofessional?

  4. decision-maker?

  5. learner?

  6. teacher of own child?

B. Was home visitation part of the compensatory program?

III. Instructional Organization and Procedures

A. Were the goals (objectives) of the program clear?

  1. Did the goals contain cognitive objectives?

B. Was there a specific teacher training program for compensatory teachers?

C. Was there a plan for the use of specialists in the compensatory program?

1. Were the specialists used to demonstrate or to conduct classes?

2. Was there a resource person with special materials available to the compensatory program?

D. Were specific diagnostic techniques used to assess the individual child's needs?

E. Were teacher aides used in the compensatory program?

F. How were individual student needs met?

1. In large groups?

2. In small groups?

3. On an individual basis?

4. A combination of 1, 2, and/or 3 above?

G. What was the approximate time for involvement of individual students in the compensatory program?

1. at least one (1) hour per week.

2. at least one (1) hour per day.

3. something inbetween 1 and 2 above.

IV. Classroom Environment

A. Was there any statement indicating an attempt to avoid negative affect in the classroom?

B. Was there any statement about positive affect in the classroom?

C. Was there a statement that the classroom climate should be neutral, matter-of-fact, and/or task-oriented?

D. If the program was for primary grades, or for low socio-economic status students, was the direct instruction teaching style (or some derivative of this) evident in the program?

E. For more complex learning tasks, or for middle and high socio-economic status students, was there an opportunity for a limited degree of student choice of activity and for some freedom to suggest alternative answers or different ideas for an activity?

1. Were the above specified within limits of activity set by the teacher?
2. Were the above specified within the context of a moderate degree of structure and focus maintained by the teacher?

Results

The results of the comparison are reported in Table B1. Note that there are a number of questions which have no response or comparison. This is a result of no statement or information on this question in the planned programs. It does not mean that this particular characteristic is not present. It does mean that there was no mention of it in the planned program.

The results present in Table B1 are reported with a percentage of the 67 compensatory programs. These percentages are not evaluative of the overall quality of the compensatory programs. The percentages reflect the number of planned programs which made some statement with regard to a particular characteristic with which the program was being compared.

The discussion for the results of these comparisons will be presented in accordance with the four major areas identified earlier. No discussion of the results will be made on those specific characteristics which were not mentioned in the planned programs.

Discussion

Administration and Organization

The characteristics for administration (as well as those for instruction) were the more comparable when being applied to the sixty-seven programs. In making the comparison, an attempt was made to be as consistent as possible when answering the questions.

Table B1

Comparison of Compensatory Program Characteristics with the Sixty-seven (67) Compensatory Education Planned Programs for the State of Florida

Characteristic question number	Number of programs referring to characteristic	Percentage
Administration and Organization		
A.	--	--
1.	67	100.0
2.	1	1.5
3.	--	--
4.	--	--
5.	--	--
B.	24	35.8
C.	4	6.0
D.	5	7.5
E.	46	68.7
1.	6	9.0
F.	5	7.5
1.	67	100.0
2.	12	17.9
3.	--	--
4.	5	7.5
Home-School Relationships		
A.	4	6.0
1.	--	--
2.	1	1.5
3.	1	1.5
4.	1	1.5
5.	1	1.5
6.	3	4.5
Instructional Organization and Procedures		
A.	67	100.0
1.	2	3.0
B.	5	7.5
C.	7	10.4
1.	6	9.0
2.	6	9.0

Table B1 (continued)

Characteristic question number	Number of programs referring to characteristic	Percentage
Instructional Organization and Procedures (continued)		
D.	17	25.4
E.	28	14.8
F.	--	--
1.	1	1.5
2.	8	11.9
3.	36	53.7
4.	12	17.9
G.	--	--
1.	5	7.5
2.	49	73.1
3.	13	19.4
Classroom Environment		
A.	--	--
B.	--	--
C.	--	--
D.	--	--
E.	--	--
1.	--	--
2.	--	--

For administration and organization, there were two characteristics which were found in every program. They were that there were specific, clear academic objectives for each program and each program employed some type of formal evaluation. This formal evaluation, generally, was a pretest/post-test evaluation using a national norm-reference test or the Florida Functional Literacy test.

Another characteristic which was consistent throughout the programs was the teacher/student ratio. While 68.7% had a class size of between 1:1 to 1:15, the remaining programs generally did not exceed a class size of 1:20. Of those with class sizes up to 1:15, most had classes between 1:10 and 1:15.

Of the remaining characteristics, only one other was present in a large number of programs. In approximately one-third (1/3) of the programs, there was some statement or provision for a key compensatory staff person to provide consultation and assistance to individual teachers involved on the compensatory program.

There are three characteristics which may be misleading in the frequency found in the program. While about one-tenth (1/10) of the programs mention either a sequentially ordered program, inservice for compensatory teachers, and/or continuous on-going informal evaluation in the written program plan, these activities are perhaps understood as occurring as part of accepted educational practice and therefore are not mentioned in the program plans. Thus, these frequencies may be misleading if the above is not taken into account.

Home-School Relationships

The resultant frequencies in this section are extremely low. The four programs which did mention a parent involvement component were part of the federally funded ESAA program and were not state-funded compensatory programs.

Again, caution should be taken in assuming these are not present within the state compensatory programs. The only thing that can be said is that home-school relationships were not found on the written compensatory program plans filed with the Department of Education.

Instructional Organization and Procedures

Only one characteristic here was found in the program plans. For all sixty-seven programs, the goals of the program were clear. However, few if any of these goals contained elaboration in terms of cognitive objectives. This is not to say that each program does not have cognitive objectives; it does say that of the program plans, only two had plans (3.0%) which contained cognitive objectives.

Two other objectives were present in a majority of the program plans. Seventy-three percent (73%) of the programs stated clearly that students in a compensatory program were involved for at least one hour per day. The type of involvement varied from special class periods to one-on-one tutoring. The other objective present is related to the above. Just over one-half of the programs (53.7%) specified that the program was to be individualized to meet each student's need. Most of this individualization was to take place within a specified classroom situation.

Finally, the frequency of two other characteristics should be mentioned. Just under one-half of the programs (41.8%) stated that teacher aides were to be used in the compensatory classroom. These aides often helped to reduce the teacher/student ratios to the 1:15 mark. In addition, a quarter of the programs stated that there would be the use of specific diagnostic techniques in assessing a child's needs and in prescribing an appropriate program for the child. These diagnostic techniques ranged from specific nationally used criterion-reference tests to district developed criterion-referenced measures to anecdotal information.

Classroom Environment

This was the only area in which no information was generated. The reason for this is clear. The characteristics of the classroom environment refer to specific, individual classrooms. While characteristic questions were generated, no comparison with the program plans could be made. Any attempt to characterize classroom environment for a compensatory program without making a site-visit is clearly impossible. In addition, the information found in the program plans characterize the entire program and not the environments of individual classrooms.

Summary

This appendix has presented a comparison of the characteristics of exemplary compensatory programs with the compensatory education program plans for the sixty-seven school districts in the State of Florida. The characteristic questions were listed, the results of the comparisons were presented, and there was a discussion of the results by area (Administration and Organization, Home-School Relationships, Instructional Organization and Procedures, and Classroom Environment).

This comparison is a first step in the characterization of the state compensatory education programs. The results reported in this appendix are based solely on information found in the program plans, and any information not present does not indicate that the characteristic is not present. Rather, it is not present because the information was not found in the program plan filed with the Florida Department of Education.

APPENDIX C

Site Visitation Information
Form and Questionnaire

INTRODUCTION

1. Name of School: ____________________

2. Grade Level: __________

3. Key Personnel (Interview each of Key Personnel)

   (1) Project Director - ____________________

   (2) Principal (Administrative and Organization, Section A) - ____________________

   (3) Parent - ____________________

   (4) Teacher - ____________________

4. Phone Number of Key Personnel

   (1) ______________ (2) ______________

   (3) ______________ (4) ______________

5. Dates of Visit: ____________________

6. Evaluation - How is Program Evaluated

   (a) Formative Evaluation
   (b) Summative Evaluation
   (c) Control Group
   (d) Outside Evaluation
   (e) Instrumentation (Kinds of Data)
   (f) When Collected

7. Observation Time: ______________

8. Ethnic Groups (Race and Percentage): ______________

9. Line and Staff Relationships for Compensatory Program

LEVEL I

Parent Involvement Questionnaire

1. Does your program have a parent involvement component? Yes _____ No _____ Please provide a list of any objectives you have regarding parent involvement. If you do not have a parent involvement component, please indicate why not.

If program has no parent involvement component, interview ends here. If not, why not? If yes, proceed as follows.

Remarks:

2. Do you involve parents through home visitation? Yes _____ No _____

If yes, please provide information on: (a) background and training of home visitors; (b) role of home visitors in other program components (e.g., classroom); (c) frequency, site, and purpose(s) of home visits; (d) description of target children whose homes are visited (are all children visited?); (e) home visit preparation (planning, materials developed, etc.); (f) sequencing activities (e.g., follow-up conferences); (g) monitoring of home visitors activities.

Remarks:

3. Do you involve parent in decision-making? Yes _____ No _____

If yes, please provide information on: (a) mechanisms for involvement (e.g., advisory groups); (b) frequency of solving group meetings; (c) number of members and average number attending meetings and activities; (d) what kinds of decisions are made? Any decisions regarding budget, personnel selection, program evaluation?; (e) how are advisory groups formed (e.g., appointed, elected)?; (f) does advisory group have its own budget? (g) would you be willing to provide a list of officers and numbers, a copy of by-laws, copies of minutes?

Remarks:

4. Do you involve parents as learners? Yes _____ No _____

If yes, please provide information on the following. In what ways? Please describe the kinds and frequency of such involvement. Describe the purpose(s) and site(s) of such involvement. What proportion of your budget is committed to such involvement?

Remarks:

5. Do you involve parents as volunteers? Yes _____ No _____

If yes, please provide information on: (a) number of parents involved and frequency of such involvement; (b) kinds of volunteer activities; (c) information on volunteer training and program administration; (d) teacher role, preparation, and planning time provided.

Remarks:

6. Do you involve parents as paid employees? Yes _____ No _____

If yes, provide information on the following: (a) number of parents employed and kinds of employment; (b) selection criteria; (c) information on salaries; (d) type of training required and provided.

Remarks:

7. Do you involve parents in any other ways? Yes _____ No _____

If yes, please provide information on the nature of such procedures, the number of parents involved, and the training provided (if appropriate).

Remarks:

8. What project personnel have the responsibility for conducting the kinds of parent involvement indicated above? List the names and titles of such personnel and time assigned to each activity. Provide information on their backgrounds and training.

Remarks:

9. How much emphasis is placed on the parent involvement component as compared to other (e.g., curriculum) components? Circle one: (a) most emphasis, (b) more emphasis, (c) as much emphasis, (d) less emphasis, (e) little or no emphasis.

Remarks:

10. What kinds of data do you collect on parent involvement? What is your data indicating?

Remarks:

LEVEL II

Administrative and Organization Checklist for Compensatory Education Project (Questions for Administrator)

(Schedule A - Administrator)

1. How do you go about evaluating your school's compensatory education program?

____(1) Present questionnaires to or ask community groups or organizations to evaluate.
____(2) Present questionnaires to P.T.A. periodically or utilize periodic P.T.A. discussions for evaluation.
____(3) Occasionally present questionnaire to parents.
____(4) Have questionnaires presented to total or sample of total community to evaluate relationships.
____(5) Haven't attempted to do this.

Remarks:

2. How do you use the community in forming school policies?

____(1) I make very little use of the community for compensatory policy information.
____(2) I get ideas from individuals.
____(3) Parents are invited to participate in faculty meetings on policy issues.
____(4) We have a standing lay advisory committee.

Remarks:

3. How do you arrive at your rules and regulations concerning compensatory education?

____(1) Student council determines; hands-off policy on my part.
____(2) Faculty determines; I follow hands-off policy.
____(3) Faculty and student council determines with my participation.
____(4) A student-faculty committee determines.
____(5) Faculty and student council determines; hands-off policy on my part.
____(6) I determine myself.
____(7) I determine with student council.

Remarks:

4. How do you use the community for changing the school curriculum?

____(1) I make very little use of parents for curricular change.
____(2) I talk with individuals.
____(3) Representatives participate in planning conferences with the administration.
____(4) Through lay participation with extracurricular activities such as band, sports, clubs, etc.
____(5) Through occasional P.T.A. study groups.

Remarks:

5. When do you use the community in pre-planning or regular faculty meetings?

____(1) Resource people called into meetings as school needs arise.
____(2) Very little use of community in faculty meetings.
____(3) For help in determining school policies.
____(4) For help to plan the yearly calendar, field trips, or related activities.
____(5) For participation in the regular order of business of the school program.

Remarks:

6. How do you react to a teacher's opposition in private conference to your ideas or judgments about compensatory education instruction methods.

____(1) Explain my judgments result from faculty decisions; if necessary, discourage the criticism on this basis.

____(2) Depends upon my mood; when receptive, I listen and weigh carefully, sometimes discourage or ignore.
____(3) Point out that democracy calls for differences but there are times when a principal must make decisions.
____(4) Help him take the issue to the faculty or a faculty committee.
____(5) Help him feel free to do this and seek better solution together.

Remarks:

7. How do you deal with the teacher whose way of work you feel is harmful to the program?

____(1) By lessening his responsibilities to protect students.
____(2) By referring problem to a supervisor and asking that he correct it.
____(3) By giving him a stiff reprimand in person.
____(4) By frankly telling him personally or by note; no further step is necessary.
____(5) By letting things ride; then tell teacher frankly and dismiss, if necessary.
____(6) Indirectly by sufficient hinting until teacher realizes value of resigning; if necessary dismiss.

Remarks:

8. What do you do to establish pupil achievement standards?

____(1) Closely supervise classroom teaching.
____(2) Provide a professional library with current periodicals and new professional books.
____(3) Request that teachers give homework.
____(4) No attempt is made to establish any standards.
____(5) Provide periodic testing programs.

Remarks:

9. What do you do in your work with teachers to bring about changes in course offerings or content?

____(1) Sell the staff on the need to improve the program.
____(2) Provide released time for visitations to other classes and other projects that will lead to program improvement.
____(3) Close supervision of classroom teaching.
____(4) Little or nothing directly; await faculty suggestions and encourage study of them.
____(5) Get faculty interested in new texts, periodicals, professional library, etc.

Remarks:

10. How do you treat teacher suggestions for improving the compensatory education program?

____(1) Try to bring all suggestions before total faculty but time lack causes some to get lost.
____(2) Accept good ones; offer to bring up for faculty consideration; tactfully reject poor ones.
____(3) Suggest that teachers take all suggestions before designated faculty committee.
____(4) Bring all suggestions before designated faculty committee.
____(5) Bring all suggestions to faculty for consideration.

Remarks:

LEVEL II

Characteristics of School Administrators for Compensatory Education Project
(Schedule B - Teacher)

(The Administrator referred to is probably the principal. If not principal, please makes notes.)

1. Does he utilize the opinion of others?

____(1) Generally ignores the viewpoints of others.
____(2) Uses opinions if they agree with his own.
____(3) Values opinions of those who volunteer suggestions but fails to seek opinions of others.
____(4) Highly selective in utilizing opinions; sometimes values ideas that differ from his own.
____(5) Consistently seeks and considers the opinions of others.

Remarks:

2. Do his actions indicate that he believes democratic means are essential to the attainment of democratic ends? (Intent is to determine whether he is very directive or liberally democratic.)

____(1) Urges the use of processes consistent with best democratic practices.
____(2) Is cognizant of responsibility to use democratic procedures; is sometimes unsure of how to employ them.

____(3) Attempts to use democratic means; however, can be expected to resort to expedient means on pressing problems.
____(4) Gives lip service to democratic processes which are not evident in his behavior.
____(5) Uses any expedient method available to attain a predetermined end.

Give an Example:

Remarks:

3. Does he have an experimental attitude?

____(1) Tends to try out new ideas after careful study and follows through on basis of results of experimentation.
____(2) Undertakes various new projects for improvement but fails to interpret their significance.
____(3) May be premature in trying out ideas for improvement; fails to fully incorporate accepted principles of experimentation.
____(4) Action tends to be based on hunches, intuition, and other subjective means.
____(5) Tends to operate within traditional practices.

Remarks:

4. Does he interest people in examining ideas?

____(1) Stimulates people to seek solutions through critical analyses of ideas.
____(2) Encourages examination of ideas that he thinks are important.
____(3) Waxes hot and cold in stimulating examination of ideas.
____(4) Appears to consider intellectual curiosity as unimportant.
____(5) Discourages examination of ideas.

Remarks:

5. How cooperative is he with non-educational groups working for community betterment?

____(1) Is aware of and actively concerned with desires and interests of community groups, agencies and organizations.

____(2) Is interested in cooperating with community groups but spreads his efforts too thinly.
____(3) Is selective in cooperating with groups in proportion to pressures applied.
____(4) Becomes so involved with activities of non-educational groups that he neglects proper administration of the school program.
____(5) Considers the school an island that is competitive with non-educational groups.

Remarks:

6. Is he skillful in continuous implementation of policies?

____(1) Tends to ignore new policies.
____(2) Tends to defer action on new policies.
____(3) Vacillates with regard to employing new policies.
____(4) Overly cautious in effecting new policies.
____(5) Moves surely and judiciously in effecting new policies.

Remarks:

LEVEL III

Instructional Characteristics

1. The total size of the class is:

____(1) More than 30
____(2) 25-30
____(3) 20-25
____(4) Less than 20

Remarks:

2. The relationship between the time allocated to reading and the amount of time in which the students are actively engaged in reading is:

____(1) High
____(2) Average
____(3) Low

Remarks:

3. Questions asked by the teacher are designed to elicit what kind of student responses?

____(1) Knowledge of facts and information
____(2) A summary or interpretation
____(3) Application to a new problem
____(4) Synthesizing and seeing interrelationships

Remarks:

4. The amount of time in which the students are actively engaged in reading in a school day is:

____(1) 30 minutes or more
____(2) 20-30 minutes
____(3) 15-20 minutes
____(4) Less than 15 minutes

Remarks:

5. The amount of time in which students are actively engaged in mathematics in a school day is:

____(1) 30 minutes or more
____(2) 20-30 minutes
____(3) 15-20 minutes
____(4) Less than 15 minutes

Remarks:

6. Reading groups are organized primarily in which of the following ways?

____(1) Individually; a one-to-one relationship
____(2) Groups of 2-3 students
____(3) Groups of 3-6 students
____(4) Groups of more than 6 students

Remarks:

7. The percentage of the class day when the class is involved in "direct teaching" (teacher directed) is:

____(1) 75% or higher
____(2) 50-75%
____(3) 25-50%
____(4) Less than 25%

Remarks:

8. The teacher monitors students engaged in learning:

____(1) Directly and often
____(2) Directly and occasionally
____(3) Uses tutors, paraprofessionals, peers
____(4) Does not monitor directly

Remarks:

9. The amount of supplementary material used in teaching is:

____(1) Very high
____(2) Moderate
____(3) Low
____(4) Non-existent

Remarks:

10. The teacher keeps track of the actual engaged time of the students:

____(1) Consistently
____(2) Frequently
____(3) Occasionally
____(4) Seldom or never

Remarks:

11. Specialists in reading and/or mathematics are used in the class:

____(1) Daily
____(2) Frequently
____(3) Occasionally
____(4) Seldom or never

Remarks:

12. In terms of assigned time to a unit of learning, the student's actual engaged time for that unit is:

____(1) High
____(2) Average (50%)
____(3) Low (25-50%)
____(4) Seldom (less than 25%)

Remarks:

13. The supplementary materials used are:

____(1) Directly related to the task
____(2) Somewhat related and expands the task
____(3) Supplementary and not directly related to the task
____(4) Irrelevant to the task

Remarks:

14. In teaching reading, the students are:

____(1) Taught individually without group interaction
____(2) Taught individually with group interaction
____(3) Taught as a total group

Remarks:

15. The goals of the course are:

____(1) Determined primarily by the teacher
____(2) Drawn primarily for a curriculum guide
____(3) Determined by the material in the texts
____(4) Unable to tell

Remarks:

16. The objective or purpose of the unit being taught is:

____(1) Stated clearly to students
____(2) Clear to the teacher but not the students
____(3) Unclear to both teacher and students

Remarks:

17. The learning tasks for the students are determined by:

____(1) The results of individual diagnosis
____(2) General prescriptions for remediation
____(3) An adaptation of the developmental curriculum
____(4) By no consistent method

Remarks:

18. The teacher's knowledge of the subject matter being taught is:

____(1) High
____(2) Average
____(3) Low

Remarks:

19. The feedback to the students of their progress is:

____(1) Done on a regular basis
____(2) Is given at frequent intervals
____(3) Is given occasionally
____(4) Does not exist

Remarks:

20. The students are monitored during class time primarily by:

____(1) The teacher
____(2) Teacher plus aides and/or peers
____(3) Aides and/or peers
____(4) Not monitored

Remarks:

LEVEL IV

The Classroom Atmosphere for Learning

The following questions are intended to reflect the typical behaviors of teachers and pupils in the remedial programs in your school intended to improve pupil performance on the state assessment tests. Please check the behavior description which is appropriate for all pupils in the typical classroom while teacher and pupils are in the classroom.

1. How often does the teacher or a pupil express praise or other positive affect in a typical five minute period?

____(1) Not at all, in the typical five minute period
____(2) One to five times
____(3) Six to 15 times
____(4) 16 times or more

Remarks:

2. How often does the teacher or a pupil express criticism or other negative affect in a typical five minute period?

____(1) Not at all, in the typical five minute period
____(2) One to five times
____(3) Six to 15 times
____(4) 16 times or more

Remarks:

3. How many pupils or groups of pupils are typically whispering to each other or out of their seats moving about in a typical five minute period?

____(1) Less than a quarter
____(2) More than a quarter, but less than half
____(3) At least half, but less than three quarters
____(4) Three quarters or more

Remarks:

4. What percent of the classroom day does the typical pupil spend moving about or talking to other pupils?

____(1) Less than 10%
____(2) More than 10%, but less than 25%
____(3) 25%, but less than 50%
____(4) 50% or more

Remarks:

5. What percent of time in the classroom does the typical pupil spend being taught or practicing basic skills (reading, writing, doing arithmetic)?

____(1) Less than 10%
____(2) 10%, but less than 20%
____(3) 20%, but less than a third
____(4) A third but less than half
____(5) Half or more

Remarks:

6. When pupils are unable to answer teacher questions, or unable to perform tasks the teacher expects, how does (s)he typically respond?

____(1) Almost always with patience and acceptance.
____(2) Usually with patience and acceptance but sometimes with reproof.
____(3) About equally often with patience and acceptance as with reproof.
____(4) More often with reproof than patience and acceptance.

Remarks:

7. How are decisions about pupil learning tasks made?

____(1) They are assigned by the teacher.
____(2) They are assigned by the teacher, but with some consideration of pupil preferences
____(3) Teacher and pupil share approximately equally in making decisions.
____(4) Choices about learning tasks are made primarily by pupils, but with limited teacher suggestions.
____(5) Pupils are free to make choices.

Remarks:

8. To the degree that the teacher chooses pupil learning tasks, (s)he chooses them so as to:

____(1) Assure pupil success.
____(2) To be within pupils' abilities, but to offer a slight degree of challenge.
____(3) To challenge pupils, primarily, but within pupils' abilities.

Remarks:

9. How often is homework assigned:

____(1) Regularly
____(2) Occasionally
____(3) Infrequently
____(4) Almost never

Remarks:

10. What is the teacher's orientation toward "covering the material"?

____(1) Work is paced to cover the work expected for the year.
____(2) Although the intent is to "cover the material", assignments are modified to adapt to pupils' rates of learning.
____(3) Progress is in small steps, only as students have learned material well, or even overlearned it.

Remarks:

11. Peer tutoring is used:

____(1) Regularly
____(2) Often
____(3) Infrequently
____(4) Never

Remarks:

12. Instructional materials are:

____(1) From a standard curriculum.
____(2) Usually from a standard curriculum, but with occasional supplementation from teacher made materials.
____(3) Although some materials are from a standard curriculum, much are teacher made.
____(4) Materials are primarily teacher made.

Remarks:

13. When pupils are doing seatwork, the teacher:

____(1) Systematically checks to assure that pupils understand and are making progress.
____(2) More often checks, but sometimes relies on pupils to come to teacher if they have a problem.
____(3) Sometimes checks, but more often relies on pupils.
____(4) Routinely relies on pupils to come to teacher with problems or questions.

Remarks:

14. When pupils have questions about their work, the teacher:

____(1) Answers fully and directly, and verifies that the pupil understands.
____(2) Usually answers as in (1), but sometimes gives "hints" or refers pupil to another source.
____(3) Sometimes answers as in (1), but more often gives "hints" or another source.
____(4) Usually gives "hints" or refers the pupil to another source.

Remarks:

15. In recitation, when a pupil fails to answer or says he doesn't know, the teacher:

____(1) "Stays with" the pupil with hints or additional questions until the pupil answers.
____(2) Usually "stays with" the pupil, but sometimes gives the answer or refers the question to another pupil.

____(3) Sometimes "stays with" the pupil, but usually gives the answer or asks another pupil.
____(4) Routinely gives the answer or refers the questions to another pupil.

Remarks:

16. About what percent of teacher basic skills questions do pupils answer correctly?

____(1) Nearly 100%
____(2) 85% or more
____(3) 75% to 84%
____(4) 50% to 74%
____(5) less than 50%

Remarks: